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REVIEW AND SYNTHESIS OF RESEARCH IN DISTRIBUTIVE EDUCATION.

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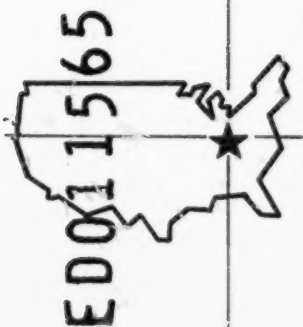
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THIS REVIEW AND SYNTHESIS OF THE LITERATURE ON DISTRIBUTIVE EDUCATION INCLUDES 59 DOCTORAL DISSERTATIONS WRITTEN SINCE 1930, 120 MASTERS STUDIES COMPLETED FROM 1957 THROUGH 1966, AND 71 OTHER STUDIES. TOPICS COVERED ARE (1) PHILOSOPHY AND OBJECTIVES, (2) MANPOWER NEEDS AND EMPLOYMENT OPPORTUNITIES, (3) CURRICULUM DEVELOPMENT, (4) EDUCATIONAL PROGRAMS, (5) INSTRUCTIONAL MATERIALS AND DEVICES, (6) LEARNING PROCESSES AND TEACHING METHODS, (7) STUDENT PERSONNEL SERVICES, (8) FACILITIES AND EQUIPMENT, (9) TEACHER EDUCATION, (10) ADMINISTRATION AND SUPERVISION, (11) EVALUATION, AND (12) RESEARCH. THE COMMENTARY ON THE STATE OF DISTRIBUTIVE EDUCATION RESEARCH IS ACCOMPANIED BY FIVE TABLES WHICH PRESENT CLASSIFICATION OF RESEARCH BY GRADUATE DEGREES, GRADUATE INSTITUTIONS, YEARS, GEOGRAPHIC REGIONS, AND SUBJECTS. THE BIBLIOGRAPHY PROVIDES A CROSS-INDEX TO THE CONTENTS. THE CONCLUSIONS WERE THAT STUDIES HAVE DOMINATED RESEARCH IN DISTRIBUTIVE EDUCATION AND THAT LITTLE USE OF TESTS HAS BEEN MADE. STATISTICAL METHODS, ELECTRONIC DATA PROCESSING, AND BETTER RESEARCH TECHNIQUES ARE BEING USED INCREASINGLY. USE OF EXPERIMENTAL METHODS AND THE DEVELOPMENT OF TESTS DESIGNED TO MEASURE SPECIFIC EDUCATIONAL OUTCOMES ARE RECOMMENDED. (SL)



Review and Synthesis
of Research in
DISTRIBUTIVE EDUCATION

THE CENTER FOR VOCATIONAL AND
TECHNICAL EDUCATION
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The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Adult and Vocational Research, U. S. Office of Education. It serves a catalytic role in establishing a consortium to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;
2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;
3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;
4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;
5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and in-service education program;
6. To provide a national information retrieval, storage, and dissemination system for vocational and technical education linked with the Educational Research Information Center located in the U. S. Office of Education;
7. To provide educational opportunities for individuals contemplating foreign assignments and for leaders from other countries responsible for leadership in vocational and technical education.

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REVIEW AND SYNTHESIS OF RESEARCH IN DISTRIBUTIVE EDUCATION

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INTRODUCTION

In keeping with The Center's responsibility for stimulating and facilitating research in vocational and technical education and its commitments to information retrieval and dissemination, this Review and Synthesis of Research in Distributive Education has been developed. The stimulus for this paper evolved from the recognition of need for establishing a base or "benchmark" for current research efforts and for the national information retrieval and dissemination system being developed by The Center and linked to the Educational Research Information Center in the U.S. Office of Education.

This review paper should aid researchers and practitioners in assessing the current state of the art in research for the field of distributive education. Further, it should assist in identifying voids in our present research framework and help "sharpen" future studies, both in terms of their substantive focus and methodological approaches. It is logical to assume that this compact review should also assist practitioners in accelerating the applications of research findings to current practice in vocational and technical education programs.

It is recognized that since the ERIC network and its information retrieval and dissemination system was not yet operative when this paper was prepared, the review is subject to gaps and that, in the main, the paper does not reflect the rapidly evolving findings

generated by funds available through Section 4(c) of PL 88-210. Admittedly, the authors had problems in securing all available material, but nevertheless, in our judgment, they have done a splendid job of "pulling together" the significant research in the area.

This paper is one of seven published by The Center dealing with research in a substantive area of vocational and technical education. Other research review papers include: Agricultural Education; Business and Office Education; Home Economics Education; Industrial Arts Education; Technical Education; Trade and Industrial Education.

Through The Center and the ERIC Clearinghouse for Vocational and Technical Education, it is anticipated that in the immediate future, other research review and synthesis papers will be developed to assist the profession in assessing an updated "state of the art" and of the potential impact of research on educational practice.

We are indebted to Warren G. Meyer and William B. Logan for their scholarship and efforts in providing the profession with this new benchmark and perspective on research in distributive education. Recognition should be given to Dr. Harland Samson, Associate Professor, Commerce and Education, School of Commerce, University of Wisconsin, Madison, Wisconsin, for his critical review and helpful suggestions for refining the manuscript prior to publication. Acknowledgment is also due Dr. Virgil E. Christensen, of The Center staff, for coordinating the work of the several authors.

Final acknowledgment is given to Dr. Neal E. Vivian, Specialist in Distributive Education, at The Center, for his review and assistance in the development of this publication.

We solicit the suggestions and comments of the profession for improving these publications.

Robert E. Taylor
Director

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PREFACE

This review and synthesis of research is one approach to the urgent need for a long-range plan of action in distributive education.

The report was written primarily for those leaders and planners who might construct a guide or a blueprint to bring about better coordination and efficiency of research efforts. The report should be valuable to researchers in the gathering of information in preparing funded projects, in the reviewing of research findings, and in the identification of needed studies. It should also be of value to practitioners as a guide to sources of information about distributive education problems.

The report includes all studies dealing with distributive education, including education and training done by business firms and by private, as well as public, educational institutions. The review and synthesis is divided into 12 regular categories plus a miscellaneous section which were outlined during the joint planning meeting of the authors from the several vocational fields at The Center for Vocational and Technical Education at The Ohio State University. Thus, easy comparisons can be made with research in other vocational fields. Organization within each category, however, was the prerogative of the authors; it varies among vocational fields and among categories within the field.

Included in this report are all of the doctoral dissertations in distributive education that the authors were able to locate, regardless of date; all of the masters' theses during the decade ending in June, 1966, whether classified locally as a thesis or a master's paper; and pertinent independent studies from a variety of sources. A fairly detailed description of the nature of the research studies may be found on page 165.

This report is subject to two limitations usually present in a project of this kind. First, the collection includes all studies about which the authors could obtain suitable information within the time limits of the project, but no claim is made that it is complete. Requests for identification and location of studies were sent to all state supervisors and teacher educators listed by the U.S. Office of Education, to all institutions listed by the National Association of Business Teacher Education, and to all persons who, in the judgment of the authors, might know about studies. The authors checked lists of studies in the fall and spring issues of the National Business Education Quarterly, Dissertation Abstracts, and Masters' Theses in Education. In addition, visits were made to several campuses. Limitations to the collection of these studies involve research respondents reporting studies which were not listed in any publication and institutional library policies not permitting loan of some of the studies.

Second, no attempt was made to assess the quality of individual research studies. This task, because of its unmanageability, has been left to the reader.

Mr. Roger Larson of the University of Minnesota prepared the summaries which constituted the raw material for the project. He also analyzed and synthesized the Iowa informal research reports. Many helpful suggestions were made by Dr. Robert E. Taylor, Dr. Virgil Christensen, and our counterparts in other vocational fields. We hope that the efforts expended in the preparation of this report will provide background information needed for future research efforts.

Warren G. Meyer

William B. Logan

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PHILOSOPHY AND OBJECTIVES

The emerging philosophy in distributive education has come primarily from independent studies by representatives of the U.S. Office of Education and state supervisors and distributive teacher educators. A comprehensive overview of distributive education was presented by Brown and Logan (1956) in the 50th anniversary edition of the American Vocational Journal. The article stressed that progress and sustained growth in distributive education is dependent upon the establishment of well-conceived objectives which are soundly implemented and carefully evaluated. Emick (1936) devoted a chapter to the aims of cooperative retail selling programs in his report on cooperative training in public secondary schools. His survey report showed the aims of training as stated by the syllabi or course of study, by the teachers and coordinators, and by merchants. It also showed their relationship to the aims of business education and of secondary education.

Characteristics and Trends

Personal interviews were conducted by Emick (1936) in a study to determine the status of cooperative training in retail selling and merchandising, to examine its growth and development, and to determine the results being obtained from classroom instruction coordinated with on-the-job training. The study showed (1) that the department store

prevailed as the training station; (2) the immaturity of students was emphasized by the merchants; (3) the students were primarily interested in selling and money; (4) the merchants felt a real need for this type of training; and (5) the merchants said that those who have taken the training are more successful in holding their positions than workers without this training.

Jones (1957) studied the practices and characteristics of distributive education programs in Pennsylvania. Eleven hundred questionnaires were sent to DE coordinators, cooperating merchants, school administrators, and DE students. He found that although program objectives were usually found to exist in some form, they were broadly stated and difficult to define. He said that more widespread publicity was needed and improvement would result if older students were available. Runge (1953) found that practices in junior (community) colleges, large high schools, and small high schools received accomplishment ratings in that order by national and state leaders in distributive education. The accomplishment ratings in the area of organization and administration of work experience programs were lower than any other area considered; many practices were permitted to crystallize and remain constant rather than to be improved; and, of the 154 practices mentioned in his check list, none were deemed undesirable. Gradoni (1957) found an agreement of objectives with actual programs in New York State. He found that trainee graduates and employers benefited materially as a result of their participation in the cooperative retail training programs; however, certain conditions had developed which he believed would adversely affect future program progress if not remedied. He concluded that aims and objectives in distributive

education must be restated in terms of more immediate and measurable goals. Warmke (1960) identified current issues in distributive education and surveyed the opinions of leaders on carefully selected issues. The response to his inquiry undoubtedly constituted a reflection of the philosophy of the leaders about distributive education. The study had two parts. In part one, it was concluded that objective certification requirements cannot serve as the complete answer in certifying DE personnel; high standards, though imperative, are difficult to maintain; DE teachers are better qualified than previously; and the issue of minimum requirements is of major importance in determining effective operating procedures in DE.

In part two, of the 62 issues there was almost complete agreement (90 per cent) on eight issues; on 18 issues, a considerable majority (67 to 89 per cent) tended toward agreement; on 23 issues, the respondents were divided on opinion, and on 13 issues there was complete lack of agreement.

Hermanstorfer (1962) compared the opinions of Iowa superintendents in 1962 with the opinions of Iowa superintendents in 1952 to determine what changes had taken place in regard to cooperative business education programs. She found a significant difference between the two groups on five important issues. She concluded that cooperative programs deserve an increasingly important place in the curriculum and that those characteristics of a good cooperative program receiving high agreement by superintendents of schools be put into practice in Iowa.

Ferguson (1964) found that many of the respondents in 102 different colleges and universities felt that occupational experience is

necessary for a distributive education coordinator. A lesser number felt that this experience should be required for high school teachers of retailing or distributive education who do no coordination of students on the job. Only 39 per cent of the universities offered an occupational work experience program whereby prospective coordinators could secure the qualifications necessary for state certification.

History of Distributive Education

Several researchers have written on the history of distributive education. Erick (1936) wrote about the early development of distributive education. Logan (1952) included a history in chapter two of his doctoral dissertation. Shoemaker (1961) wrote a history of the distributive education program in Ohio.

MANPOWER NEEDS AND EMPLOYMENT OPPORTUNITIES

Probably the most significant predictive research indicating manpower needs and employment opportunities of the future was published by the U.S. Department of Labor in 1960 entitled Manpower -- Challenge of the 60's. The author stated that during the 1960's, professional, office, and sales jobs will grow faster than the average occupational group. He said that during the past decade, professional, office, and sales workers as a group exceeded for the first time in our history the number of persons employed in manual occupations (skilled, semi-skilled, and unskilled jobs). During the coming decade, he predicted that this trend would continue.

Job Stations of Co-operative Students

Haines (1957) asked state supervisors in each of the 13 states of the Central Region to furnish information about the placement of co-operative part-time students in relation to opportunities in distribution. In response to letters sent out during the spring of 1957, 10 of the 13 states returned the data about their placements. The data on number of establishments, sales, and number of workers were provided by the Bureau of the Census. The food group employed the most trainees (19.4 per cent). Four groups, food, variety, general merchandise, and apparel, accounted for 65 per cent of the trainees. Placements in the furniture and household group were greater than 2.5 per cent in every state. Most states had 4.5 per cent of trainees in gasoline service stations. The conclusions reached were: (1) heavy placements are being made in consumer goods stores while they are conspicuously absent in wholesale, eating, and other types of retail businesses, and (2) service is a number one training station in communities under 2,500 but drops somewhat in larger communities. Wholesale businesses account for the least number of training stations in communities under 100,000.

Feasibility Studies

Four feasibility studies that are of significance include a study by Biester (1949) of the possibilities for distributive education in Minnesota; Lowe (1963) made a study to determine the need for and ability to support a program of cooperative vocational business education in Utah; Rogers (1962) made a study to determine the possibilities for a DE program in a community in Iowa; and Strietelmeier (1962)

made a study to determine the need for a two-year post-high school retailing program in Ohio. Biester's study was divided into four main divisions: (1) the status of distributive education in Minnesota; (2) the need for distributive education; (3) its administration; and (4) a feasibility program that would meet the need in the state. The results indicated that the possibilities for distributive education in Minnesota were much greater than the extent of the existing program. She concluded that the development of distributive education commensurate with its possibilities would require much promotion, publicity, and education for school administrators, business people, and students in order to acquaint them with the possibilities. She recommended that a study be made to find out what occupations male distributive workers follow before they go into distributive jobs since the age statistics seemed to indicate that most men did not go into distributive work until they were 25 years of age or older.

In Lowe's study, three questionnaires were used; one was sent to 1,000 business firms; another to 40 business education teachers; and the third to 3,200 11th- and 12th-grade students in Salt Lake City. The findings: (1) a large number of students desired vocational training; (2) teachers expressed a desire for the program; (3) students expressed an interest in the program; (4) a large number of jobs would be available for high school students; (5) business firms indicated a willingness to cooperate in the venture; (6) teachers were willing to teach the necessary courses; and (7) funds were available.

In Roger's study, questionnaires were sent (1) to ninth- and 10th-grade students in Knoxville, Iowa; (2) to junior and senior high

school teachers and administrators; and (3) to selected parents of the ninth- and 10th-grade students. Two hundred and fifty students, 63 parents, and 31 teachers and administrators participated in the study. The conclusions were as follows: (1) a preliminary survey of this type was an important step in determining the feasibility of initiating a DE program in Knoxville, Iowa; (2) there were enough students (ninth- and 10th-grade) in the community who desired to participate in a DE program to justify its initiation; (3) all groups in the study were interested in supervised on-the-job training in the senior high school (78 per cent, 71 per cent, 73 per cent); (4) forms developed during the study could be helpful in deciding whether or not a program should be started; (5) the students did not seem to be aware of courses or subjects not currently offered by their school that would give them a better preparation for their occupational goals. Similar feasibility studies of local communities were made by Eaton (1957) in the North Park (San Diego) business area, by Johansen (1958) in Oelwein, Iowa, by Wakefield (1959) in Knoxville County, Tennessee, by D. Smith (1962) in Englewood, Colorado, and by Zabinski (1962) in Chula Vista, California.

Strietelmeier interviewed merchants in all areas of the state. The results indicated (1) that there was an abundance of placement opportunities in the retail field for students enrolled in a two-year post-high school program and that the opportunities would increase; (2) that the facilities for offering a two-year post-high school program in the state were inadequate; and (3) that the merchants interviewed were anxious to cooperate in the development of a program on the post-high school level.

CURRICULUM DEVELOPMENT

From the standpoint of some researchers, studies and projects relating to curriculum are considered suspect. Until recently there have been grave misgivings as to whether curriculum research exists as a field distinguished from educational research in general. While the curriculum literature has been rich in statements of purposes, philosophy, and principles, it lacks theoretical formulations which foster researchable hypotheses. A curriculum study is usually considered as a process of evaluation, as distinguished from formal research. In reality, the difference lies mostly in the degree of precision in the measures applied, not in the quality of research design. The purpose of this discussion on curriculum development is not to appraise the quality of research in this domain but to call to the reader's attention what has been done and what is being done. He can then examine those studies which interest him and use them as he sees fit.

Curriculum Development in General

In order to obtain perspective on curriculum development in distributive education one needs to view this segment in relation to the total field of curriculum research. With this purpose in mind, the writer first will abstract pertinent ideas from the Review of Educational Research, June, 1966, which treats curriculum planning and development. Then the distributive education studies will be reviewed with references to the development of curriculum research in general. The remaining material in this discussion of "The

"Curriculum in General" is taken almost entirely from the Review and rearranged to fit the context of this project. The numbers in parenthesis refer to page numbers in the Review.

Curriculums respond to many forces--social, economic, demographic, technological, and political. Since Sputnik and the "technological explosion," great emphasis has been placed on subject matter. This has caused the moving down of topics usually taught in the higher grades. The tendency has been to focus on the revision of single subjects. Much attention has been given to the structure of the discipline or to the body of knowledge to be studied. Currently there is growing concern for viewing the curriculum as a means of achieving behavioral changes rather than cramming information into learners. There is also a trend toward the construction of new courses composed of a synthesis of information from several disciplines and an effort to develop competencies in the more complex process of the cognitive domain. Education at every level is now being viewed as a continuum from pre-school to the graduate school. "K-12" (kindergarten through the 12th grade) has become common parlance. Distributive education curriculum planners today seldom think in terms of the secondary offerings alone but in terms of the total program from the ninth grade through the adult component of the program.

The Structure of the Discipline

Much attention is now being given to re-examining the content of subject fields from the standpoint of the structure of knowledge and the method of inquiry. Structure of the discipline, defined as "the body of concepts that limit the subject matter and control research

about it," (362) commands great interest among educationists and academicians. Each discipline has distinct concepts and methods which distinguish it from other disciplines. This interest in the structure of the discipline was manifest in a paper by Nelson (1963) presented at the October 1963 National Clinic on Distributive Education, when he identified marketing as the basic discipline for this field and enumerated six functions of marketing as its basic components.

Current interest in the discretion of subjects and their organization as separate disciplines has caused some prominent educators to be concerned about the lack of a pattern of studies that fits coherently into the total curriculum. Kliebard (390) saw the "structure of the disciplines" as replacing former focal points in education such as "the whole child" and "education for democratic living." He feared that those disciplines exhibiting more structure and precise objectives may be relegated to a higher status than those with less structure. Conversely, others believe that the emphasis on formulating the fundamental structure of each discipline will result in an effective synthesis of related disciplines. The latter group believes that the contemporary efforts toward developing the structure of the separate disciplines may eventually produce the missing links for curricular interrelationship and synthesis. Miehle (365) viewed educational thought and curricular changes as functions of an ascending and enlarging spiral characterized by forces for separateness and specialization on one side of the spiral and by wholeness and synthesis on the other side.

In any discipline, the substantive content is linked to a corresponding way of thinking about and using it. In the minds of

some educators there is a conflict between content and process. This assumed dichotomy has caused considerable confusion. One author (365) referred to a current tendency within individual disciplines to shift from "inventory" to "transaction," terms which carry the same connotations that they do when applied to merchandising. Thus, a pedagogical pendulum of popular emphasis seems to swing between content and method. Bruner (365) viewed curriculum as "an enterprise where the line between subject matter and method grows necessarily indistinct."

The observation has been made that in comparison to the physical sciences, the biological sciences are more complex, diversified, and less formulated, while the social sciences are still more complex and diversified. Scriven (366) stated that the complex nature of the social sciences makes it impossible to produce vast theories; instead, the ultimate task of the social sciences, to his way of thinking, is the production of low-level generalizations and quantified assortments of phenomena. It appears as though the complex nature of the human oriented social sciences (anthropology, economics, history, political science, psychology, and sociology) together with business administration, upon which distributive education draws, are sufficiently complex to lend some credence to the idea of at least devoting initial efforts in curriculum development to so-called "low-level" generalizations and quantified assortments of phenomena.

The progression from the concrete and well-formulated disciplines to those which are complex and less well-formulated may be found among vocational fields and within the occupations, and certainly among the competencies within an occupation. Those knowledges in distributive

education which are relatively concrete and easily measured receive more attention in training, education, and research than theoretical elements. For example, contrast the collegiate school of business accounting department with selling or marketing as to the number of courses offered and enrollments.

Curriculum Revision

Zacharias and White (368) reported four phases in a program of curriculum revision: (1) the problem of determining the precise boundaries of the educational unit, (2) the process of identifying the subject matter to be treated within each unit, (3) the embodiment of the subject matter in material form, and (4) the preparation of teachers in the new subject matter and in the use of the materials.

Goodlad (368) pointed out four approaches for evaluating new programs: (1) observations of whether or not students appear to be progressing successfully, (2) casual and systematic questioning of teachers and students involved in the new programs, (3) periodic examinations of students by tests designed to cover the new materials, and (4) comparative testing of students in "new" and "old" programs with traditional and specially designed tests.

The problem of curriculum organization has been confused by an unreal dichotomy between the so-called "logical" ordering of knowledge and the psychological effects on the learner. The objective is to secure a logical scheme of organizing knowledge so that the learning outcomes are psychologically more desirable. Mieh1 (350) suggested two ways of organizing curricula, as problem-centered or discipline-centered; she proposed a combination of both methods.

The Role of Objectives

The centrality of the study of objectives has always been emphasized in curriculum planning and development. A division of curriculum and objectives has been established in the American Educational Research Association which has taken an interest in reworking and integrating objectives into curriculum work. Global statements, which previously were acceptable, must now be expressed more precisely before they can be treated as independent variables in a research program. The approach taken in the Taxonomy of Educational Objectives, Handbook I: Cognitive Domain by Bloom (1956) and the Handbook II: Affective Domain by Krathwohl, Bloom, and Masia (1964) has provided a basis for consistent application of objectives to curriculum development and planning. The authors believe that objectives can gain meaning in education through two processes: expression in behavioral terms and placement within an over-all matrix.

Flanagan (391) pointed out that defining educational objectives in behavioral terms is essential to enable teachers and other educators to distinguish mere innovation from genuine improvement and to frame separate sets of objectives for each student. Procedures for implementing the objectives approach were presented by Krathwohl (391) who suggested an analysis at increasing levels of specificity, including (a) broad general statements necessary to program development; (b) goals of sequences of courses, single courses, and instructional units; and (c) outcomes of sequences of lesson plans and of single lesson plans. The first level (a) appeared to be teacher aimed as distinguished from goals stated in terms of pupil behavior in levels (b) and (c) which would be appropriate to the latter two levels.

The Impact of Technology

Two kinds of technological advancement have influenced the curriculum: (1) industrial advances or automation and (2) educational technology. Automation has increased the demand for scientific and professional workers but decreased the need for unskilled labor. This development coincided with the introduction into the labor market of millions of newcomers arising out of the population explosion. This situation gave rise to the war on poverty and legislation which provided funds for a variety of displaced and disadvantaged youth and adults. It has made a strong impact on the curricula.

Technology also brought mechanical and electromechanical devices or "hardware" into the classroom. Thus, we have automated classrooms, complete with teaching machines, tapes, discs, television hookups, radios, films, classroom computers, and retrieval systems. Some of these media were developed with little reference to educational theory. Programed instruction, however, was developed by Skinner in accordance with principles of learning related to active participation of the learner, progression at individual rates, and immediate feedback. Lumsdaine (346) believed that "machines" made it possible to approximate an ideal learning sequence, revisions of program based on feedback from students, and emphasis on efficient learning conditions. Cronbach (366) called attention to an emerging problem in that the hypothetical basis, upon which many of the new curriculum programs are being designed, appear to run counter to programed instructional theory.

Curriculum Development in Vocational Education

Vocational educators can acquire much useful information about curriculum development and evaluation from studying the practices and procedures of general curriculum specialists and of specialists in allied disciplines. Common problems can be identified and an insight into the interrelationships of the several substantive fields can be gained. While a large portion of this information may be applied to vocational curriculum situations, common sense dictates that there are important differences in the settings, which should be kept in mind. For example, while vocational educators are interested in the development of the whole individual, their primary mission is directed toward employment entry, adjustment, and advancement. Work adjustment, which Scott *et al.* (1960) described as consisting of worker satisfaction and satisfactoriness to the employer, is a persistent criterion in judging learner performance. Another durable criterion is the employment, or unemployment, ratio. These are relatively tangible criteria compared to those of many general education areas. Thus, the opportunity in vocational education to assess individual and collective needs and to develop curricula which keep pace with changing times is a great deal easier than in many aspects of general education.

Work Adjustment

Dawis *et al.* (1964) have published a bulletin entitled A Theory of Work Adjustment, which provides a series of hypotheses of great value to vocational researchers. Weiss *et al.* (1964a) reported on the measurement of an individual's vocational needs and on the Minnesota Importance Questionnaire (1964b) which is a measure of job

satisfaction on 20 dimensions. Carlson et al. (1963) reported on the measurement of the worker's satisfactoriness to his employer. Thus, there is available to vocational education researchers and curriculum planners a battery of tests for studies in curriculum development and evaluation.

General Vocational Capabilities

Occupational change stimulated a search for general vocational capabilities exemplified in a study directed by Gagne' (1966). The most important implication of the study was that there is a definable and well-structured domain of vocational capabilities which has not previously been well defined and which is not being systematically taught. This domain is compatible with, and intimately related to, existing academic disciplines and specialized vocational training. In addition, the reporter of the study suggests that vocational content might be ordered along some underlying continuum such as hardware-to-people: (1) mechanical, (2) electrical, (3) special, (4) chemical and biological, (5) symbolic, and (6) people. Content categories along the hardware-to-people continuum were found to be highly compatible with a cross-cutting set of psychological processes arranged in a hierarchy of complexity--(a) sensing, (b) detecting, (c) role sequencing (chaining), (d) discriminating or identifying, (e) coding, (f) classifying, (g) discrete estimating, (h) continuous tracking, (i) logical manipulation, (j) rule using, (k) decision making, and (l) problem solving.

The suggestion of general vocational capabilities calls to mind Nelson's report (1963) in which he identified tool subject competencies

and personal qualities together with technological competencies and those based on the discipline of distribution mentioned earlier.

Curriculum Development in Distributive Education

General Content from Community Sources

Distributive education researchers are accustomed to utilizing the business community in gathering information for curriculum purposes and in using business personnel as participants in evaluating curriculum outcomes. Carter (1958) identified trends in distribution and reported the need for curriculum revision in the areas of display, pre-selected merchandise, high sensitivity goods and services, all advertising media, small business management, automation in inventory control, expansion of service businesses, increasing status of employees, and in the area of product developments.

Data processing and automation have received some, but inadequate, attention. Waltz (1959), through interviews and observations, found basic data processing systems dealing with selling, purchasing, and general accounting activities of the firm. Their reported role was to provide information at the time and place needed to (1) aid management in planning and controlling, (2) perform routing operations, and (3) meet external requirements of government agencies, associations, or other groups. Rose (1963) studied the impact of automation in American department store operation from the standpoint of revising the distributive education curriculum.

Several degree studies have been directed toward obtaining information on the education and training of managers and executives.

Johns (1962) studied educational, professional, and cultural factors contributing to the selection of potential business and industrial managers and found that the individual most likely to succeed was a graduate from a school of business administration whose undergraduate education included 50 per cent general education, who achieved high scholastic achievement and had demonstrated leadership in social, professional, and civic organizations. College courses considered necessary were also listed.

Kunsemiller (1961) studied the recognized needs of independent retail store owners in selected cities in California. Binford (1957) used questionnaires, interviews, and observations to identify the problems in operating small retail business establishments in Colorado. The problems were classified into six groups which provide clues for curriculum construction. He found that the managers were not well informed about current business practices, that they were very independent, and that they refused to follow or learn sound business practices. Mayer and Goldstein (1961) observed 81 small retail and service firms surviving their first two years of existence to determine the factors which differentiated between those surviving and those that closed. The study revealed that the motivation for starting a business may be more a matter of spur-of-the-moment decision than logic and that managerial experience appears to play a greater role in success than occupational experience. The report contains much information which may contribute to content selection for post-secondary and adult distributive education programs. Ovsiew (1962) directed a study of the educational attainment of service station operators in the United States, using a random sample of 69 persons

who were interviewed. He gathered information about their backgrounds, abilities, and personality and interaction items, which may be of value to curriculum researchers for this aspect of distribution. The report also sets forth a longitudinal research program which may give clues to more productive procedures for training service station operators.

Customers, a useful source of curriculum content which is infrequently used, were the source of information in a study by Barrett (1963) that compared ratings of retail store services with textbook treatment of those services within the realms: (1) greater variety of merchandise, (2) price, (3) better quality, (4) newer styles, and (5) special sales. Only the first was inadequately treated in textbooks. The investigator recommended that textbooks should also treat the topics of store hours and shopping days.

A third source of research data from the business community, a source which is almost untapped, is the worker himself. Lombard (1955), a Harvard professor of human relations, studied the needs and satisfactions received from their jobs by a group of department store children's wear salesgirls and also the interpersonal relations and sub-group structure of this group. Whereas many studies are concerned with output and productivity, this study focuses on ways people in business secure personal satisfactions. The study reveals that the most important influence which restricts the development of new behavior patterns in the department store as a whole are the assumptions about behavior underlying the executives' evaluation of service. The conclusions of the study point to a need for the re-education of executives in sensitivity to group behavior patterns and awareness of the effects of their own behavior on others.

A fourth source of curriculum information derived from the business community is the formal training done by business firms and organizations. Nesser (1961) found that training programs offered to college women graduates by department stores consisted of orientation concerning rules and policies, knowledge of the firm's products, services and trade areas, and about the technical skills.

Clark and Sloan (1962) studied the education and research carried on by 36 of the largest 38 American retailing concerns using a variety of information sources and found the amount of formal education conducted by retail establishments extremely limited as compared with industry. The annual training cost per employee for firms with sales of more than \$100,000,000 was reported as ranging from \$2.50 to \$3.44. Clark and Sloan divided education by retail corporations into three categories: (1) rank-and-file orientation training, (2) more intensive training for person-to-person selling, and (3) managerial development programs. The report contains examples of managerial course content. It also contains a report of a U.S. Department of Agriculture study which concluded that the performance of retail salesclerks can be improved considerably by carefully planned instruction.

The Clark and Sloan report, Classrooms in Stores, pointed out only a relatively small number of workers have received any formal training for retailing either within or outside of the corporation but education is not wholly responsible for this condition. Research programs are likewise accountable because education disseminates new findings; and since the kind of research carried on by stores is concerned only with day-to-day operations, there is little basic innovation to be communicated through education. Data are reported which

show the relatively low-productivity growth of retailing as compared to agriculture and industry. Retailing is labeled as a bottleneck in the American economy because of its current inadequate contribution to the gross national product.

Adams (1959) studied sales training programs of 88 firms covering a variety of topics of interest to high school distributive educators from a guidance viewpoint but of particular interest to post-high school curriculum workers. For example, he found that (1) three-fourths of the companies match selectee's qualifications to job specifications but only a few firms make time-and-motion studies of salesmen and use these in training; (2) that most companies give product information, information about the company, and some formal class work in salesmanship; (3) that more than half of the companies also give courses covering the following subjects: organization and management, policy, human relations, credit department functions, company records and reports, advertising, and marketing channels; (4) a number of firms require of sales trainees actual experience in the factory; and (5) that most firms that sell through distributors furnish training aids and sales training to those distributors.

Another source of helpful information for curriculum development is the employer's appraisal of student-trainees and other workers. For example, Wiklund (1958) used employers and training-sponsors to identify adjustment problems of beginning workers. These problems were then used in guiding the selection of materials for teaching occupational adjustment. The investigators recommend this type of study periodically to check the relevancy and adequacy of current

general vocational content for classes of cooperative student-trainees.

Specific Occupational Content
from Community Sources

When distributive education researchers seek to develop materials for student use in learning individual occupations they are prone to go directly to first-hand study of the positions classified under the occupational title concerned. Little (1962), in preparing a cashier-checker training manual, examined available materials, obtained opinions of selected employers concerning duties and responsibilities of this occupation, surveyed training methods, and estimated current employment needs. A tentative instructor's manual was developed and tried out in an actual classroom situation. A questionnaire based on the revised manual was sent to 200 members of the state grocers' association and the data was tabulated and analyzed. The investigation revealed many facts about the changing nature of this occupation which were not realized by the investigator who had a rich background in food distribution.

Two studies were related to the identification and selection of content in teaching retail drug store occupations. Samson (1956) found that beginning workers might be assigned to all but four of these departments. Employers reported that knowledge of products is the most important information to be learned by their employees. Hanson (1963) interviewed pharmacy graduates in different types of retail drug outlets to determine content essential to education about business and business operations which should be included in the preparation of pharmacists. Findings were assembled in 40 case studies.

Watson (1963) studied buyer understandings of life insurance. Although the purpose of the study was to provide a basis for improving the understandings of life insurance for personal and family use, the findings may be evaluated for use by distributive educators. Hamilton (1965) studied the educational needs and desires of savings and loan employees as perceived by interested personnel of savings and loan associations. Fuerst (1959) used a variety of direct and indirect sources in arriving at content for job-study-guides in retailing paint and wallpaper. C. White (1958) used a similar procedure in constructing job-study-guides for three main categories of women's ready-to-wear. He found that employers in this field also consider merchandise information most important for beginning workers.

Areas of Distribution Content from Community Sources

Distributive education curriculum workers are more inclined to look to colleges and universities for information when constructing curricula relating to an area of distribution such as selling, sales promotion, and market research, perhaps because of the greater complexity resulting from a broader scope; however, some studies involve a search of the business environment. Thompson (1953) recorded on tape the work of expert salespeople as they served customers to determine the essential elements of retail salesmanship in department stores. The recordings were transcribed and searched for the presence of essential elements as revealed by earlier studies. A jury of authorities verified the elements that were identified in the transcriptions. Thompson found that identical salesmanship elements are employed by the experts in 32 different selling departments.

implying that selling methods are similar even though merchandise and customers may differ.

Callister (1966) used a purposive sample of sales promotion specialists to determine topics to be included in an elementary course in sales promotion. A panel of sales promotion specialists participated in identification of necessary competencies for beginning positions in the sales promotion field. An achievement test was constructed based on behavioral objectives in both affective and cognitive domains. The test was administered, analyzed, and revised. V. Anderson (1965) produced a sound slide presentation on newspaper advertising by taking pictures in a local newspaper plant and then writing a script. She recommended its use at the beginning or at the end of a unit. Leipold (1964) used a questionnaire in a city of 40,000 population to obtain information about training needs of advertising personnel, qualifications for employment, and job duties. He found that a variety of media are used to communicate the advertising message; the need for various distributive personnel with general or specific knowledge of advertising practices varies greatly among businesses; planning an advertising budget is an important topic to be taught, as is where to advertise; and that there seems to be little interest in the mechanics of how an advertisement is produced.

Studies of Off-Farm Agricultural Occupations

Very interesting curriculum development work has been carried on in the area of off-farm programs, particularly in agricultural distribution. Taylor (1965) traced this kind of research activity in a presentation at the American Vocational Association in December,

1965. He reported that by September, 1964, about 40 states had undertaken studies to identify the competencies needed in these occupations. The Center for Vocational and Technical Education at The Ohio State University undertook the task of summarizing and synthesizing these studies. It organized them into training clusters and developed instructional materials. A task force, composed of some 30 vocational educators and headed by Glenn Z. Stevens and H. M. Hammond, was organized. Several national advisory meetings were held and five regional meetings for state staff and local persons interested in implementing the pilot programs took place. The five broad areas classified as needing the greatest number of agriculturally trained employees were: (1) marketing and distribution of agricultural supplies needed in farming; (2) processing and marketing of livestock and meat products, dairy products, and fruit and vegetable products; (3) ornamental horticulture; (4) agricultural machinery sales and services; and (5) agricultural service to farming and agri-business. Another outcome was a series of publications including a summary of the research. Course outlines were prepared. Seven of the most clearly defined competency factor groups for four clusters (manager, field man, salesman, bookkeeper, and service worker) were: (1) human relations, (2) salesmanship, (3) business management, (4) plant science, (5) animal science, (6) agricultural mechanic, and (7) building trades. A similar list of competency factor groups were developed to meet the needs of employees in agricultural machinery sales and service (manager, salesman, parts manager, bookkeeper, and mechanic).

Wilson (1965) described the Wytheville pilot program. A feasibility survey conducted by the Agricultural Education and Distributive

Education staffs of the Virginia Polytechnic Institute (1963) revealed that there were 61 agriculturally related business firms with 1,708 employees who were classified under 80 different job titles in the city of Wytheville, population 6,200. Eighty-nine per cent of the employees needed training in both agriculture and distributive subjects. A two-year course of study was developed offering a total of 180 hours of instruction each year.

Secondary School Distributive Education Curriculum Studies

There are approximately a score of studies which, on the whole or in part, are concerned with secondary school distributive education curriculum in general. In addition, there are more than a dozen studies that deal with segments of the secondary school curriculum in this field. In this review and synthesis of research, the two kinds of investigations will be discussed separately.

Secondary School General Distributive Education Curriculum Studies

The general studies relating to the high school curriculum reported here range in time from 1935 to present. They are grouped according to time periods rather than by source of data as was done in the preceding part of the curriculum development section of this report, the reason being that this means of classifying the studies seems to the reporters to be the most meaningful.

Early Curriculum Studies

The first curriculum study of national scope was done by Emick (1935). It described retail selling classes in operation in this

country during the school year 1932-33. Courses were divided into two general forms: (1) the core subjects in a special curriculum required of all those in this field, and (2) elective subjects or a sequence of subjects which may be taken by those pursuing the college-preparatory or other curriculums offered by the schools. This relatively complete study is helpful to researchers from the standpoint of developing a perspective on curriculum development. It stated the aims of programs, described the curriculums, identified curriculum problems, and furnished much general information about the programs prior to and at the time of the report.

Banks (1943) completed a dissertation based on the establishment of a cooperative distributive education program at Millville, New Jersey, High School. This early study had considerable effect on the high school curriculum because of numerous articles which were written about it in vocational education periodicals. Weale (1948) went about the identification of distributive education content for secondary schools systematically. He compiled a list of approximately 100 "skills and knowledges" which were classified by employers and co-ordinators separately as to importance and as to whether or not they should be learned primarily in school, primarily on the job, or partly on the job and partly in school.

Studies of the 1950's

Nearly a decade elapsed before another study bearing on the secondary school distributive education curriculum emerged. Gradoni (1957) broke the spell with another study dealing with cooperative education for retail occupations in New York State in which he used

interviews, observations, analysis of job performance ratings, and other means to determine the status of certain aspects of the cooperative program. Among his recommendations was his suggestion that there be additional specialization in curriculum content. In a study of the distributive education programs of Pennsylvania, Jones (1957) found that graduate follow-up studies made the poorest contribution to curriculum revision. Donaldson (1958) obtained a ranking by students of instructional units in the Illinois distributive education course of study. Harris (1959) polled coordinators on a nation-wide basis to inventory the practices used in teaching occupational group learnings at the several educational levels. He found considerable difference of opinion as to what should be taught in pre-employment courses as compared to classes for cooperative student-trainees. He recommended an analysis and comparison of course content in schools where students are enrolled first in pre-employment courses and later in cooperative classes, to reduce duplication. Raeker (1959) analyzed the courses of study of 15 states which published such materials and sent questionnaires to state supervisors. He found little similarity in the style and content among the courses of study and little consistency in terminology. The decision as to what should be included in the course of study was usually left to the individual teacher-coordinator. He also observed that populous states do much more than others in producing courses of study. Trimpe and Dannenberg (1959) reported a complete survey of distributive education subjects and programs of Michigan public high schools. In identifying issues in distributive education in 1959, Warmke (1960) obtained the opinions of 57 carefully selected leaders in this field. He obtained information about placement of

educational objectives at various educational levels. Opinion was divided on the percentage of class time in the distributive education cooperative program to be devoted by the student trainee to study his specific job ranging from less than one-fifth to more than one-half.

Studies of the Early 1960's

All of the studies of this period precede the Vocational Act of 1963. Ovsiew (1960) directed a team of observers who studied 21 large city distributive education programs for the purpose of producing a collection of practices to be shared with interested parties. Although this report can hardly be classified as research, it contains numerous clues to hypotheses which may be investigated. Viewpoints and supporting arguments are given on a variety of curriculum-oriented subjects such as decisions whether to offer a general or specific curriculum or both. The report indicated that "there is some evidence that metropolitan centers are seeking to identify, classify, and teach the general fundamentals which apply throughout the field of retailing. But for the present at least, the response to specific needs has high priority and, since success is its own best reason for being, it may be that the alertness and adaptability to local needs is distributive education's strongest characteristic." The influence of the study of general vocational capabilities by Gagne (1966), mentioned earlier, on the search for general vocational capabilities that apply throughout the field of retailing bears watching.

Mason (1961) made an analysis of the related instruction for cooperative part-time programs in distributive education in Illinois and found that there was not a precise fit between what business wants

from training and what teacher-coordinators do in providing training. Mason found that there was agreement between the importance of rankings of businessmen and teacher-coordinators on: (1) getting along with customers and fellow workers; (2) salesmanship fundamentals; (3) good work habits; and (4) merchandise information. The two groups agreed that these are the four most important areas of instruction but placed them in different rank order. Hecht (1963), in following up graduates of three New York high schools, found that general and social type units were judged to be more important than specific retailing units; only the selling techniques unit was judged among the first six. He concluded that more time should be spent on salesmanship, display techniques, buying, and advertising. A sequence based on student opinions was established for units which could be learned better in class than on the job. Johanson (1963) evaluated 30 Iowa high school distributive education programs using the principles included in the 1960 evaluative criteria of the National Society for the Study of Secondary School Evaluation (NSSSE). The study showed that there were major strengths in the "nature of offerings" aspect of the distributive education curriculum content.

In October, 1963, a national clinic on distributive education was sponsored by the Distributive Education Service of the U.S. Office of Education. Among the papers presented by members of the staff was that of Nelson (1963) which seems to have been a harbinger of a new emphasis in curriculum development for careers in distribution. Nelson briefly described four specific occupational competencies: (1) social competency, (2) basic skill competency, (3) technology competency, and (4) a marketing competency. Thereafter, occupational competencies

received primary emphasis in curriculum development and research. Warmke (1963) presented a paper on the relationship of economics to distributive education which also exerted some influence on distributive education curriculum development.

Baker (1963) surveyed the units of instruction taught in Marketing and Distribution I, II, III, and IV in Kansas. Hall (1963) wrote a suggested course of study for distributive education based on library research and materials from the Illinois State Board of Education. Attention was given to aims and objectives, nature of materials, and organization of a class. The resulting course of study was tested in distributive education classes. She reported that the most successful programs used the following topics: (1) Orientation, (2) Personal Development, (3) Salesmanship, (4) Arithmetic, (5) Merchandising, (6) Sales Promotion, Advertising and Display, (7) Store Organization, (8) Establishing a Store, (9) Planning and Control of Operations, and (10) Store Finance.

Studies Subsequent to the Vocational Education Act of 1963

Federal appropriation of funds earmarked for research under the Vocational Education Act of 1963 did not produce as large an increase in curriculum development and evaluation projects in distributive education as might have been expected. In fact, no studies dealing with the secondary school curriculum in general after 1963 were located. However, several studies have been completed which involve the secondary school curriculum and a funded project using the competency pattern approach to a teacher education curriculum for teacher-coordinators is under way.

Samson (1964) made a study of critical requirements for distributive education teacher-coordinators in Iowa. Some of the requirements reported have implications for curriculum development. For example, several requirements in the area of "instructional activities" infer the necessity of providing individual instruction to meet the special training needs of student-trainees. The same comment might be made regarding a similar study by Harris (1965) who studied both distributive and office occupations teacher-coordinators in Illinois and compared the two. Harris also used reasoned-judgment reactions of teacher-coordinators to several curriculum issues. Reactions to the advisability of using class time in cooperative part-time programs to the study of a student's job was almost unanimously positive. The same conclusion may be made regarding the use of class time for club activities. Willingness of the reader to generalize beyond the population sampled is his prerogative.

Following up on the current interest in teaching economic understandings, Vivian (1966) used the Test of Economic Understanding (Stalnaker) to measure achievement of 5,000 Indiana high school seniors including distributive education student-trainees. He found that formal instruction in economics, participation in the distributive education program, or participation in a Junior Achievement program were not significantly related to the level of economic understanding measured by the test. Although significant differences appeared on all three variables on the pre-test and post-test, this appeared to be a matter of selection rather than an effect of instruction as no significant differences were indicated on the adjusted gain scores. Klaurens (1965) evaluated experimental text material on economic

competencies for student-trainees in cooperative education programs which had been developed by Minnesota teacher-coordinators and University of Minnesota staff members. The Test of Economic Understandings - Form B, referred to in the Vivian study above, was administered to experimental groups which used the material and to control groups that did not use the material. This was done both prior to and after the material was studied by the experimental group. The experimental group achieved a mean gain score of 1.9 points which was significant at the .005 level of confidence while the control group did not show a significant gain. Teacher-coordinators who used the materials with average or better than average academic students reported gains as high as 6.7 score points. The reading level of the test is high; thus, students of below average academic ability have a difficult time reading the test. Klaurens questions the appropriateness of the test in evaluating the text materials. She found that there was a strong relationship between the teacher-coordinator's being involved in the production of the text materials and their reactions to it as well as the reaction of their student-trainees to it. This agrees with the contention of many curriculum workers that teacher involvement is essential to achieve changes in curriculums. A curriculum guide for teaching "Economics for Young Workers" has been prepared by the Distributive Education staff of the University of Minnesota for the Division of Vocational and Technical Education of the U.S. Office of Education, which culminates several years of curriculum development work in this area of study.

The competency pattern approach to curriculum research, which has been popularized recently in vocational education, was studied

by Crawford (1964) who later designed a proposal and became the principal investigator for a funded study of the competency pattern of a distributive occupations teacher-coordinator. This study, which is still in process, included job analyses of distributive occupations positions held by cooperative program student-trainees and of positions to which they are likely to advance. This information, when released, will be of considerable value to distributive education curriculum workers.

Carter (1966) studied the status of, opportunities for, and enrollment in business education (including distributive education) and in home economics in Indiana public schools. The abstract of this recent study does not distinguish between offerings in the area of office occupations and distributive occupations. Carter concluded that (1) high school courses in business education are not only ample, but generous, and those in home economics are compatible with the needs; (2) business education subjects are the most popular electives; (3) more students should elect home economics courses; (4) business education enrollments are almost as large as all other vocational education courses combined; (5) from 1946 to 1962, business education held its position percentage-wise while home economics declined; (6) adult education is confined to the larger schools; and (7) the opportunities in adult education are inadequate and are not being fully utilized.

Secondary School Areas of Distribution Content

Earlier in this discussion of curriculum development studies, a section was devoted to those under the title "Areas of Distribution

Content from Community Sources." Studies described in that section are not directed to any single level of instruction. The following studies were designed to produce or guide the production of secondary school curriculum materials only. These studies deal with the following areas of distribution or portions of areas of distribution: advertising, show-card writing, cash register operation and change making, salesmanship and occupational relations. With the exception of the study by Martin (1962), those reported are master's degree studies.

Olson (1957) investigated content and practices in teaching high school units of instruction on advertising to Minnesota distributive occupations student-trainees. He recommended that advertising be taught to these students regardless of type of program and that employment possibilities in the field of advertising should be stressed. Smith (1957) prepared a teaching unit in show-card writing for distributive education students. The teacher's manual was tried out by fifteen teacher-coordinators and judged successful. Smith concluded that show-card writing is not limited to distributive occupations; it should be taught early in the year and before advertising and display. It can be taught successfully on the pre-employment level of instruction, as well as in the cooperative program. Layout was found to be the most difficult lesson.

Embertson (1965) constructed a linear auto-instructional program in money handling and use of the cash register for distributive education students by following procedures recommended by experts in programmed learning. During the course of its construction, 21 frames were added. He concluded that (1) programmed learning could be an effective technique in the training of distributive education

students in these skills; (2) programed learning could provide adequate training in minimum time since each student works independently at his own individual rate; (3) programed learning could free the teacher-coordinator for additional student training in other areas; and (4) programed learning could develop skills within a range of student abilities.

One-half of the studies listed under "Secondary School Areas of Distribution Content" deal with salesmanship. Avritch (1958) built two units of instruction, "Why Consumers Buy" and "Obtaining Customers," based on an analysis of student needs. Incorvaia (1960) constructed a course of study for the teacher of salesmanship. Flannery (1961) surveyed 127 distributive education and diversified occupations teacher-coordinators of Illinois, Iowa, Minnesota, and Nebraska to determine the emphasis given to various salesmanship topics in pre-employment and cooperative part-time training courses, length of the salesmanship course, textbooks used, type of program taught, amount of overlapping content between pre-employment and cooperative courses, and titles of course. He found that (1) most coordinators reteach some units in 12th grade; (2) that the diversified occupations course with pre-employment salesmanship is extremely weak in the treatment of salesmanship; (3) diversified occupations coordinators placed more emphasis on the steps of a sale and mechanics whereas distributive education coordinators ranked the philosophy of selling much higher; (4) sales delivery was considered very important by both groups; (5) selling careers was considered a very important topic; (6) the time spent in teaching salesmanship varies greatly; (7) and the course is given 15 different titles.

Martin (1962) contributed information about content selection for retail salesmanship through an analysis of six textbooks dealing with this subject. He retained 279 of 539 different facts, principles, and concepts identified in the texts for study. To obtain customer acceptance, he submitted the items to 100 randomly selected parent-customers of Amsterdam, New York. Of the 279 items, 77.1 per cent were essential in terms of the expert opinion; 40.9 per cent were acceptable to the parent-customers, and 30.5 per cent were both essential and acceptable and were assumed to be the basic essentials.

Ortega (1962) developed a teaching unit for self-improvement for a course in salesmanship based on literature from several fields. It placed emphasis on oral communication, manners and grooming, and on personality and character traits. Sharper (1964) made a survey of formal in-service training programs for salespersons in selected retail firms with implications for improvement in the distributive education curriculum in the public high schools of Washington, D.C.

Work adjustment has long been a problem of employers and employees alike, yet little has been done by researchers in distributive education to alleviate it. In addition to the Lombard study (1955) discussed earlier, three masters' papers were completed in the late 1950's. Rosenwinkel (1957) polled teacher-coordinators in Minnesota, North Dakota, South Dakota, Iowa, and Illinois to identify what employer-employee and co-worker relations problems should be given most emphasis in cooperative part-time classes. He also solicited teaching devices used by teacher-coordinators in dealing with these problems. All respondents agreed on the following problems: the student-trainee (1) does not accept criticism and suggestions without

excuses, (2) does not realize what the employer has a right to expect of him, (3) does not listen to or follow directions carefully, (4) is not willing to put forth extra effort to improve his work, (5) does not accept corrections or advice from fellow workers, (6) fails to realize what fellow workers have a right to expect of him, (7) does not listen carefully to fellow workers' explanations of how a job is to be done, and (8) puts blame on others for shortcomings of poor work.

Wiklund (1958), in his study mentioned earlier, surveyed employers and training-sponsors to locate job adjustment problems of beginning workers. Respondents were pleased with the student-trainee's reactions to suggestions, with their understanding of what the employer has a right to expect of them, with the way they react to directions, and with their understanding of the chain-of-command. One-sixth of the training-sponsors felt that their own directions and explanations to new workers were not thorough and that there is a need for more and better classroom instruction in the area of co-worker relations. Nearly 30 per cent of the respondents felt that trainees did not ask enough questions. Johnson (1958) did a companion study at the same time using a questionnaire sent to 534 Minnesota high school student-trainees. The report showed that students, by and large, were well-satisfied with their training stations and felt that they were making satisfactory work adjustment. However, certain clues to improvement of learning both on the job and in the classroom were evident. Thirty per cent of the respondents indicated that there were times when they were uncertain as to the source of orders and directions. One out of five stated that he was not satisfied with the

answers employers gave to his questions. Problems encountered in getting acquainted with fellow workers were shyness, trying to remember names, and a difference in worker ages. Nearly one-half of the respondents indicated that the necessary business system and company policies were not explained to them by their employers. A number of the trainees indicated that they were learning things in their occupational relations class which were in direct disagreement, or had no relationship to their jobs. They also indicated a list of topics, that were not included in their classroom instruction, which they thought would be of help to a new employee on the job. Most frequently mentioned were employer-employee relations, together with more salesmanship and merchandising.

Post-Secondary Distributive Education Curriculum Studies

Up to the present time there have been very few studies designed specifically for post-secondary curriculum purposes. Less than a dozen are reported in this review and synthesis of research.

Post-Secondary Curriculum Surveys

Four post-secondary curriculum surveys were reviewed. Martin (1952) studied practices of California junior colleges to promote and maintain merchandising programs using literature, personal contacts, and questionnaires with school personnel. He found that instructors and coordinators rely on their work experience as a primary source of information, that work experience is considered feasible for students by all administrators, and that merchants and employees were generally not consulted when objectives for programs were being formulated.

White (1957) surveyed 360 public junior colleges to determine certain operating and curriculum practices. He found that credit was given for almost all courses and applied toward the Associate of Arts degree. Transfer to four-year colleges was possible with special consideration given to individual cases. The business and general courses in the 61 institutions where distributive education was offered included beginning accounting, English, mathematics, speech, beginning typewriting, social science, economics, business English, psychology, and introduction to business. Many colleges did not require a complete curriculum but developed individual student programs. Distributive courses concentrated around salesmanship, retailing, advertising, and merchandising. Like Martin (1952), Carver (1960) studied California Junior Colleges. He examined the changes in curriculum for the 20-year period, 1938 to 1958, and found that they had grown from a single-course offering to several curriculums; that the average number of semesters of distributive education courses within the curriculum had increased from 3.8 in 1938 to 5.6 in 1958; two of the newest curriculums are real estate and transportation; merchandising has remained the most popular curriculum; in second position are advertising, real estate, traffic and transportation, and business operation and management. Pusher (1961) surveyed 29 community colleges in seven states and found that the Associate of Arts degree is offered in 26 of them and the Associate of Commerce in two; that considerable attention is given to general education; that 13 vocational courses are prescribed by one or more schools; and that the most common vocational courses are: retailing, accounting, salesmanship principles, business

correspondence, business mathematics, introduction to business, advertising, marketing, business law, and economics.

Post-Secondary Feasibility Studies

Very few feasibility studies for post-secondary programs have come to the attention of the persons preparing this review and synthesis of research. Mills (1966) did a study of the Kenosha, Wisconsin, trade area for the purpose of determining the advisability of installing an agri-business curriculum preparing students for horticulture-related occupations and for the purpose of obtaining suggestions for curriculum content in this field. Another study of this nature was completed by Hart (1962). However, the reviewers were unable to procure a summary of the study within the allotted time for preparing this report.

Post-Secondary Evaluative Studies

Two studies dealt with post-secondary curriculum evaluation. Corbman (1958) sent questionnaires to graduates of the Retail Distribution Department of New York Institute of Applied Arts and Sciences during the period 1947 through 1953 to determine what curriculum revisions might be made. The findings were very favorable to the existing curriculums. The program achieved its objectives; the competencies taught were necessary and useful; cooperative training was very helpful. The graduates felt that there was insufficient need for specific training in the areas of retail credit and interior decoration. While minor revisions should be made in the aims and objectives of the subject areas of retail management and personnel

problems, there was no general need for any additional training in the current curriculum. The investigator recommended that retail training should include all types of retailing organization and that consideration should be given to including in the curriculum training in retail personnel relations. Henkel (1965) received 56 responses to 99 questionnaires used in following up graduates of the two-year technical institute marketing programs in Wisconsin during the period 1960 through 1963. The report indicated that the courses most often recommended for addition to the curriculum were speech, more English, buying, and mathematics. The investigator recommended a follow-up of employers to get their viewpoint, greater choice of elective subjects, and on-the-job training for students who want it.

Areas of Distribution Studies
Designed for Post-Secondary
Curriculum

Areas of distribution studies specifically designed to improve content selection for post-secondary curriculums is almost nonexistent. George Smith (1963) did a study of economic concepts basic to an understanding of introductory marketing. Although marketing is usually taught in the upper division of the collegiate school of business, the course is also taught frequently in post-high school programs and his findings seem appropriate to this discussion. Smith found that a pattern of relationship exists between a broad range of basic economic concepts and the subject matter of the collegiate introductory marketing course and groups of related topics therein. He concluded that the soundness of educational practice whereby students are permitted to enroll in collegiate introductory marketing

courses with no prior training in economics or with only one three-hour prerequisite course in economics is questionable. Vomhof (1965) did a documentary study leading to a bibliography of business ethics designed for distributive educators. He found reading materials scarce. Categories of his bibliography were: (1) need for teaching business ethics, (2) management ethics, (3) history of ethics, (4) employee ethics, (5) religion and ethics, (6) consumer ethics, and (7) methods of teaching ethics.

Adult Distributive Education Curriculum Studies

In the area of curriculum per se, only three adult education studies were located. Becker (1957) made an analytical study of adult distributive education course offerings and instructional practices in 52 cities of 200,000 population and over. The primary emphasis of the study was on adult education instructional and operational procedures, but the pattern of course offerings should be of interest to curriculum designers. Boranian (1959) used school and State Department of Education records and publicity brochures to study the evening school program of St. Paul, Minnesota, for the years 1949 to 1958. He found that the lack of proper physical facilities and the lack of a good central location restricted course offerings. Other than this, he found that the curriculum was flexible and responded to the needs of students. Creed (1966) did a descriptive study of classes offered in the adult distributive education program. An abstract of the study was not obtained in time to report the kind of population studied or the nature of the findings.

EDUCATIONAL PROGRAMS

From the outset, distributive education was offered both as an in-school program and as an out-of-school program. The in-school program consisted primarily of the cooperative program in the high school. Later a preparatory program in the high school and programs for high school students with special needs were added. Pre-employment and cooperative programs on the post-high school level were also introduced. Programs for youth and adults with special needs have been added to the out-of-school offerings in recent years.

In-School Programs on the
High School Level

Five of the eight studies reviewed related to initiating and establishing distributive education on the secondary school level. One study by Thomas R. White (1965) described the characteristics of Ohio communities and high schools having distributive education. Twenty-five characteristics were identified. Among the characteristics were: (1) schools having distributive education were larger than the average; (2) the average distributive education teacher's salary was higher; (3) teacher turnover was related to salary; (4) the schools had an unfavorable counselor-student ratio; (5) most schools did not follow up graduates; (6) the tax valuation was slightly lower than the average; (7) 85 per cent of the schools had other vocational education programs; (8) there was no correlation between number of programs and size of community; and (9) most administrators permitted any student to enroll. In the second study, Young (1958) made a survey of distributive education in the Houston

(Texas) high schools. The third study was done by Fitzpatrick (1963) who drew up a proposal for a cooperative program in distributive education at Niles (Illinois) Township High School.

The other two studies resulted in manuals for use by high school coordinators and school administrators in initiating and conducting high school programs. A manual was developed by Allen (1959) working with an experienced group of distributive education coordinators. It was validated by submitting the manual to five other coordinators. Flis (1962) constructed a manual to be used by Minnesota school administrators and teacher-coordinators in establishing cooperative part-time programs. Materials for the manual were obtained from local and state literature, from teacher-coordinators, and state supervisors. The material received was reviewed and pertinent parts were selected for use in the manual. An outline and a manuscript were prepared. The manuscript was submitted to selected school personnel, to the state supervisor, and to the teacher educator for criticism and revisions.

The sixth study pertained to factors influencing growth or retardation of cooperative high school distributive education programs and was done by Petersen (1965). She reported that the apparent growth was primarily attributed to (1) cooperative and well-qualified distributive education coordinators and (2) federal legislation for vocational education. The seventh of the seven studies to be reported was done by Butler (1964). She made an analysis of the importance of distributive education. A summary of the study was not obtained for this report. The last of the eight studies on in-school programs at the high school level reported here was done by Labella (1958). Likewise, the summary of the study was not obtained for reviewal.

In-School Programs on the Post-High School Level

A relatively small number of post-high school distributive education programs are in operation in the United States. Most of the research is aimed at determining the status quo of the program. One study was made by Richard A. White (1957) to determine the extent of distributive education programs in the public junior colleges of the United States and to gather information about the schools and the curriculums. In 1957, 61 colleges offered work-experience programs including distributive education. The average enrollment in the colleges offering distribution education was 400 students more than those without programs. The schools were located in larger cities. Most colleges were public school or independent school districts. Few were governed by state authorities or were branches of other four-year colleges. Nearly every college also offered business and/or secretarial science. The average distributive education enrollment was 20 students. Faculty members were given limited time for coordination activities. Most of them had additional teaching duties.

In order to determine the need for post-high school distributive education in Ohio, one researcher, Edwards (1960), selected five factors and conducted personal interviews with experienced distributive education coordinators. She submitted a questionnaire to a sample of cooperating merchants to obtain the results. The five factors selected were: coordinators tended to think that there would be less of a problem in developing vocational interest in a post-high program than they were experiencing in high school; a majority of the coordinators thought that a distributive education program should be offered as a separate post-graduate course rather than as a continuation

of the present high school program; most coordinators thought that the high school was the best place to offer a distributive education program because too many students could not be reached otherwise; many merchants indicated a need for post-high school specialized training for distributive occupations; a large majority of the merchants said that they would cooperate with a post-high program; and most comments by merchants were in agreement with those of coordinators.

Her conclusions: a need does exist for post-high distributive education in Ohio but it varies with different communities and within different business classifications; and existing educational facilities will require consideration in any development of post-high distributive programs.

Two questionnaires were used by Busher (1961) to examine distributive education programs of selected public community colleges in the United States in 1961. He found that all of the schools required high school graduation for entrance and a 2.0 (on 4.0 scale) grade-point average to graduate. Course offerings and degrees granted were described in part three of this report. Sixty per cent of the schools reported that students might elect to take only vocational subjects and work-experience courses with the intention of remaining in school for one year only.

A study was made by Hoover (1960) to determine the types of co-operative job-training programs provided for business majors in a selected group of junior colleges and to determine the status of certain aspects of the program. Questionnaires were sent to 11 colleges accredited by the North Central Association of Secondary Schools and Colleges offering distributive education. The average

number of hours students spend on the job each week was 15. Credit hours earned were two. One out of three indicated specific pre-requisites for admission to the program. The coordinator was responsible for obtaining job stations and evaluating student performance. Visits to job stations were made at least one time during the semester and more when possible.

A study was made by Tippet (1966) to determine the guidelines for selecting instructor-coordinators of post-secondary distributive education programs. Salisbury (1966) reported on post-high school distributive education in Bucks County, Pennsylvania. A summary was not immediately available.

Training in Business Establishments

The extent to which the retail segment of the economy engages in educational activities was sought in a major study by Clark and Sloan (1962). Thirty-six of the 38 largest retailing organizations as listed in Fortune magazine in 1960 participated in the study. Information was obtained through personal interviews, corporation publications, correspondence, and general literature. In addition, interviews were held with key persons in the retail field representing publications, trade associations, research agencies, and officials of retail corporations not included in the Fortune list. The report was prepared from the accumulation of the information. Evaluations were not made.

Clark and Sloan found that the total amount of formal education conducted by retail establishments was extremely limited. The smaller the establishment, the less likely it was to have formal training. It was found that education in retailing does increase the productivity

of the employees. Partially, as a result of the lack of widespread employee training, retailing is an area of low-productivity growth, lower than agriculture or manufacturing and lower than the average for the economy as a whole. The research carried on by the large retailers is mostly concerned with day-to-day operations; little exploratory research is done.

Clark and Sloan said that those large establishments which do engage in educational activities emphasize sales and managerial development and are inclined to adhere closely to the bare essentials which promise maximum results and minimum expense. Though there were many and varied opportunities for retail training outside the corporation, they touched but a relatively small number of the approximately eight million people employed in retailing establishments. They stated that retailing was beginning to mechanize some of its operations and since mechanization, followed by exploratory research, ushered in a period of unprecedented productivity growth in agriculture, it might do the same for retailing. They state further that machine teaching offers retailers a rare opportunity and many training programs could be established where none existed. Lastly, programs could have been broadened to offer more extensive educational opportunities.

Three degree studies treating company training programs will be reviewed. Tregilgus (1954) evaluated employee training programs in the laundry and dry cleaning industries of Indiana. The first part of the study dealt with the status of training within the industry; the second was an evaluation of the effectiveness of the training. He found that most employees received some training for their jobs. Route salesmen usually received longer and more intensive training

than other workers. Instructional materials were developed by the trainers. These materials were inadequate, yet the available teaching tools were not used. Little use was made of distributive education. The objectives of the training program usually were achieved and the program seemed to meet the needs of the industry. The training programs were considered worth their cost but should have been evaluated and modified to meet the changing needs of the industry. More attention should have been given to "human engineering." Cameron (1958) prepared a validated questionnaire which was sent to 276 department stores with annual sales volume in excess of \$5,000,000 to examine policy and practices of training programs for potential executives. The abstract of his study provides more information on qualifications and recruitment practices than on training practices. The following conclusions related to training programs. Eighty-seven per cent of the stores recruited executive development trainees from in-service personnel. Eighty-three per cent of the stores required high school graduation for admission to the program. Forty-eight per cent of the respondents felt that their trainees' salaries were not competitive with those offered college graduates in other fields of work. There was little uniformity in the so-called job rotation plans of the participating stores and it would seem that the term "job rotation" was misused when trainees' assignments on any particular job extended over 12, 16, 20, 24, and 52 weeks. Sixty-two per cent of the respondents felt that their training efforts over the previous five years had not produced a sufficient quantity of qualified young management personnel. Peterson (1965) made a survey of the recommended and actual training practices for restaurant service personnel. Results of this study did not reach the reviewers in time to be included in this review.

Adult Education in
Small Communities

Chrismer (1960) attempted to determine the method and procedures for bringing adult distributive education to communities of 5,000 population or less. Information was obtained from the literature and from community surveys. Questionnaires were sent to all state supervisors of distributive education and to local leaders where significant activities were under way or contemplated. The researcher found that communities of less than 5,000 population had a definite need for adult distributive education. Chrismer concluded that (1) successful programs were possible in communities of this size; (2) state authorities should assist in planning programs; and (3) the most successful method to reach small communities is through the use of itinerant teachers.

Ruth (1966) conducted a study to determine the factors needed to improve the quality and scope of adult distributive education in the State of Ohio and to identify some of the basic problems in the organization and development of adult distributive education. He concluded that trade associations and chambers of commerce are interested in promoting adult distributive education and would be interested in expanding much more effort if they had an explanation of the adult program and local directors of the program were active. He further concluded that the prime reason for success of local adult distributive education programs was the fact that the coordinator was devoting more than 10 per cent of his time to this aspect of the distributive education program.

INSTRUCTIONAL MATERIALS AND DEVICES

The amount of research on instructional materials and devices seems small in relation to that done on problems associated with the curriculum, instructional methods, and guidance. Research in this area is primarily composed of master's degree studies. One reason for this situation may be that distributive education is still relatively young and problems relating to instructional materials have been absorbed into those of curriculum development. Under the leadership of the State Department of Education, many states produce curriculum guides and courses of study which embrace instructional materials, methods, and devices. Superior teacher-coordinators are frequently employed to prepare materials or the materials are produced in workshops. Another factor in the low productivity of this kind of research may be the current tendency to think of content, materials, and methods as a trinity rather than as separate aspects of instructional preparation.

The material that follows will be discussed under two broad headings--teacher materials and devices and student materials. The line of demarcation between them may not always be clear, but this division will serve satisfactorily as an organizational pattern for this discussion.

Teacher Materials and Devices

State Courses of Study

The amount of material produced and distributed by vocational education divisions of state departments of education is abundant. Some states support research staffs which work closely with local

distributive education personnel in the production of instructional materials. To identify the states that produce excellent materials is inappropriate here and would consume considerable space. The only research reviewed that treated state courses of study was conducted by Raeker (1959) who analyzed distributive education courses of study from 15 states according to content, organization, typographical form, and other physical features. He found little consistency in terminology and little similarity in the style and content. Some states showed little regard for a consistent format among their own publications. No single method of duplicating or binding prevailed.

Source Lists

Without doubt, the most widely used general source list for distributive educators was the Distributive Education Bibliography first produced in 1954 under the direction of Mrs. Pauline Burbrink at the University of Texas, Division of Extension, Austin, Texas. Supplements were issued in 1957, 1959, and 1961. The most recent publication of this kind to receive wide distribution is that of Levendowski (1966). Robert E. Smith (1956) surveyed the existing sources of films and filmstrips to locate materials pertaining to distributive education. He reviewed and evaluated the material that he located, prepared a resource file indicating the areas of study in which the films could be used to best advantage, and described some of the problems encountered by teachers in their use. Arnold (1959) prepared an annotated bibliography of periodical articles appearing in eight widely used business and vocational education periodicals during the years 1947 through 1958. The bibliography was a comprehensive review of 565 articles briefly annotated. The information

was later used in the preparation of a publication entitled, An Annotated Bibliography of Periodical Literature Relating to Distributive Education 1947-61 by Arnold, Poland, Meyer, and Haines, which was distributed by the Office of Publications, College of Education, Michigan State University.

Care and Storage of Materials

Two master's degree studies dealt with the care and storage of materials. Figge (1957) devised a filing system for teacher-coordinators which was a modification of the Veridex system. Duxstad (1963) devised a system for clipping and storing articles from trade magazines.

Achievement Tests

Achievement tests are discussed elsewhere in this review; however, they warrant mentioning here to identify them with teacher materials and devices. Callister (1966) prepared an achievement test for a unit on sales promotion. Ashmun (1966) prepared an achievement test for a post-high school unit on business problems as part of a doctoral dissertation.

Student Materials

For discussion purposes, student materials will be divided into four categories: textbook related studies, audio-visual materials, and individual study materials and group instruction materials.

Textbook Related Studies

Pope (1959) did a study of the reliability of salesmanship, merchandising and retailing textbooks. A summary of the study was

not immediately available for review. Harris (1959) studied course content and evaluated distributive education textbooks. He sent questionnaires to 360 teacher-coordinators in 48 states and received 142 replies. He found that 39 different textbooks were considered basic. His findings related to the composition of the books, the content areas, the end-of-chapter activities, format, and other mechanical features. A study by Flannery (1961) included the collection of data on textbooks used in distributive education classes in Illinois, Iowa, Minnesota, and Nebraska.

Audio-Visual Materials

Studies dealing with audio-visual materials were completed by Wheeler (1961), Christianson and Lorenz (1957), and Anderson (1965). These studies are reported on page 64 under the heading Resource Characteristics.

Individual Study Materials

White (1958), Fuerst (1959), Kohns (1963), Embertson (1965), Goodenough (1965), and Russell (1966) worked in the area of individual study materials. Their findings are described on page 65 under the heading Resource Characteristics.

Group Instruction Materials

Case problems, business games, and role-playing situations were studied by Ashmun (1961), McClanahan (1964), Kieffer (1959), Mayer and Goldstein (1961), and Hinsverk (1963). These group instructional material studies are reported on pages 64 and 66 under the heading Resource Characteristics.

LEARNING PROCESSES AND TEACHING METHODS

Teaching methods, particularly as they apply to "non-cooperative" secondary school distributive education students, have taken the spotlight during the past few years. Many distributive educators are presently concerned about maintaining the vocationality of the instruction of students who are not concurrently employed. Evidence of this concernment was reflected by Marks (1963) who delivered a paper which spelled out means of providing for the development of vocational competencies of students in occupational preparatory classes as this task was conceived by the Distributive Education Service of the U.S. Office of Education. This apprehension about maintaining the vocationality of instruction is only one of several instructional situations which are related to similar problems throughout secondary and post-secondary educational fields.

There seems to be increasing concern about instructional and teaching methods which is not confined to distributive education. In describing the present interest in educational methods, Phillips (1966) shed some light on factors which stimulate the distributive educators' interest in this subject. He pointed out that until recently few educators made a sharp distinction between a curriculum and the means of achieving its goals; it was assumed that the essential ingredients were simply the teacher and the curriculum guide and that the teacher, with a few "aids," would implement the curriculum. The concept that instructional and learning materials are mere aids to ongoing instruction has come under even more searching analysis. He raised the question whether the materials are "aids"

or are "indispensables," and whether or not a coherent body of learning resources should be designed concurrently with a new curriculum to make possible its implementation.

Another influence on teaching methods in distributive education which sounds a familiar chord to readers associated with managerial training is the instructional-systems concept. Phillips described the systems approach to education as follows:

The fundamental question underlying the systems concept is: Which resource or combination of resources (people, places, media) is appropriate for teaching what type of subject matter to what learners under what conditions (time, place, size of group, and so on) to achieve what purpose?

Vander Meer (1964) pointed out that differing views would inevitably lead to different systems because an analysis must begin with a specification of goals. Since system design requires an analysis of the system's components, the characteristics of the different resources must be studied in order to combine them into meaningful subsystems of the larger systems called "the school" and "education."

Finn (1963) indicated that there are two concomitant developments taking place--one, a technology associated with mass instruction, the other a technology associated with individualized instruction--and that these two technologies are being united into an all-encompassing instructional technology. Distributive education manifests this problem of blending individual and mass technologies in its life-long debate over the allocation of time to be devoted to individual and group instruction in the classroom. The issue in distributive

¹Phillips, Murray G., "Learning Materials and Their Implementation," Review of Educational Research, 36:374; June, 1966.

education has not been a matter of one or the other but rather how much of each should be allocated in a given situation.

Inasmuch as the systems approach to learning has an appeal which bridges education and business, it seems reasonable to use it as a model for the organization of a discussion of research pertaining to the learning process and teaching methods in distributive education. It appears that in distributive education, a distinguishable approach to instruction has emerged which may be analyzed along the lines of the components used in systems analysis: (1) learner characteristics, (2) resource characteristics, (3) teacher characteristics, (4) instructional methodology, and (5) administrative problems.

Learner Characteristics

Much has been said about the characteristics of high school and post-high school distributive education students but very little research has been done to support these descriptions. C. Mills (1964) made observations of high school students based on a nation-wide sample of 85 schools in 28 states. He found that more than 80 per cent of the cooperative program students have mental maturity scores between 85 and 114; six per cent have scores below 85; more than 70 per cent of these students ranked in the lower two quartiles of their respective classes for all three years of the study, which included the years 1954-55, 57-58, and 60-61. The study indicated that the achievement of distributive education cooperative high school students compared favorably with their abilities as reflected in their mental maturity scores and that there was a greater tendency for them to complete high school than their fellow students. Lucas (1964) gathered data on 44

students in the Ohio Wholesale Management Program. He found a strong relationship between the grade-point average of these students and their American College Testing scores as well as their high school rank. He concluded that allowance should be made for possible delayed maturity and increased motivation of certain students. These recommendations provide some clues to the characteristics of these students.

Schadt (1965) compared creativity test scores of Kenosha Technical Institute marketing majors with students majoring in secretarial science, data processing, and accounting. He found that marketing students had the highest over-all level of creativity among the four groups as measured by the test and that second-year students scored higher than first-year students. He recommended the use of creative-type teaching methods for these students.

Leister (1964) compared 218 Dallas, Texas, distributive education high school students with 218 non-distributive education students using cumulative records and employer reports. She found that the existing health problems of the students of the two groups tended to be similar but that the distributive education students were reported to have visited the school clinic more frequently than other students. She also found that the families of the distributive education students were significantly larger, that more of them were married, and that the number of them who lived with their parents was significantly smaller than the group representing the general high school population.

Occupational orientation of distributive education students may be gleaned from the Warnke study (1960) and the Harris study (1965). A cardinal principle of guidance in distributive education at the

secondary and post-secondary levels is the necessity of the student's possessing proper occupational aptitudes and interests, yet little research on this learner characteristic was located. In a survey of 515 distributive education students in 15 Iowa high schools, Reed (1957) found that 77.7 per cent enrolled because they wanted work experience.

Rountree (1965) conducted a well-designed study of the attitudes of 191 North Carolina distributive education high school students to determine their attitudes toward classroom instruction, their work experience, and toward careers in distribution. (A modified version of a summated rating scale, providing for both objective and subjective responses, was used to determine student attitudes. Validity was determined by internal consistency and logical or curricular methods. The split-halves method was used to determine reliability. Use of a scoring key insured objectivity.) On the classroom instruction scale, 91 per cent of the students scored above the 75. On the work experience scale, 87 per cent scored above 75. On the careers in distribution scale, 78 per cent scored above this figure.

Studies by Rosenwinkel (1957), Wiklund (1958), and Johnson (1958) mentioned earlier, which identified the problems of beginning student-trainees in cooperative programs, provide some clues to the characteristics of high school learners. Apparently the adult distributive education student is almost a forgotten man in recent research on learner characteristics since only one study was classified in this category, that of Lombard (1955), a sociologist rather than an educator.

No description of learner characteristics would be complete without some discussion of the influence of the employed worker's job environment on his behavior as a learner, for in the understanding of the work situation lies the clues to the solution of many pedagogical problems. Whether or not an employed student is willing and able to apply what he learns in the classroom depends on his value system, on volition, and on the will of the employee group of which he is a member. As Lombard revealed in his report, Behavior in a Selling Group, much also depends on the kind of supervision he experiences. In most classes, each member brings to class with him the influence of a different occupational setting. Lombard provides an excellent description of individual values and occupational group environments which contribute to learner behavior.

Resource Characteristics

Numerous rich resources for learning and teaching materials have characterized distributive education since its inception. Virtually born in a real-life occupational environment, the instructional problems until recently were largely those of optimal use of cooperative training stations as the major problem and intelligent use of the model stores and individual learning aids as important concerns bearing on learning a job and an occupation. Recent provision for federal reimbursement of pre-employment instruction has increased the use of the model store. Emphasis on occupational competencies has revitalized individual study and brought to light new competencies which can best be developed through club activities. The discussion of resource characteristics to follow will center around (1) classroom resources, (2) job and community resources, and (3) student club resources.

Classroom Resources

The near dearth of literature on physical facilities in distributive education may be partially attributed to the dominance of cooperative education and the early notion that a model store is not necessary under the cooperative plan. Only a half-dozen studies treating the model store and school stores were located, three of these being devoted primarily to the subject. The discussion of physical facilities at this time will be limited to their use as a learning resource. Other facets of the subject will be discussed later.

Model Stores and School Stores

Peart (1961) examined the objectives of high school and junior college facilities for distributive education and analyzed practices in their use. From the standpoint of instructional resources, he concluded that (1) lists of implemental activities, ranked according to relative importance, provide a more reliable basis for an evaluation of the utilization of a classroom laboratory than do lists of objectives; (2) the laboratory may serve as an appropriate supplement to occupational experience; (3) it provides students with an opportunity to perform as many different tasks as their interests and abilities warrant; and (4) that it provides facilities for properly demonstrating basic skills and information. Peart also concluded that the classroom laboratory cannot be considered a substitute for cooperative occupational experience and that the coordinator should give high priority to the practice of maintaining standards of workmanship and productivity comparable to those in the business community and to adjusting the operations to meet the changing conditions in business establishments. Dorr (1962) included in his case studies of weaknesses in coordination

practices a case on failure to make maximum use of training opportunities afforded by the retail classroom laboratory. This provides a clue to an important problem in relation to physical facilities.

Warmke (1960) reported that 80 per cent of the distributive education leaders in the United States thought that the distributive education classroom should have a model store unit.

Yormark (1960) evaluated school-operated stores in the State of Washington. He found that these student-operated businesses within the school were valuable tools of instruction in developing salesmanship skills but that there are weaknesses and shortcomings in their use. He listed as shortcomings the lure of profits for club projects and the temptation to develop a large-scale operation. He cautioned that the store should be considered in perspective to other enrichment techniques and that a school store without a clear-cut statement of policy can cause misunderstanding and community resentment. He concluded that a store which does not have formal systems of organization, buying, pricing, receiving, and accounting cannot be considered a realistic laboratory for retail training.

Audio-Visual Materials

Nesser (1961) studied the training practices of 100 department stores and found that manuals, movies, textbooks, and filmstrips were the most popular teaching aids used. Clark and Sloan (1962) reported a similar sequence. The use of more audio-visual materials that are up-to-date was 10th in a list of 28 distributive education students as reported by Donaldson (1958). Films and other forms of audio-visual materials are frequently used in distributive education classrooms at all instructional levels, yet little research has been reported in

this area by distributive educators during the past decade. The only work reported was the preparation of poster boards and scripts for three filmstrips on suggested methods of solving human relations problems by Wheeler (1961) and the preparation of similar materials for seven filmstrips on retail selling for high school and post-high school student viewers by Christianson and Lorenz (1957). The latter series was made into a series of sound filmstrips with the aid of Sears Roebuck Foundation funds. V. Anderson (1965) produced a set of slides with accompanying sound as a substitute for a field trip to the local newspaper plant. In summary, the only research on the use of audio-visual materials reported relates to student preferences concerning instructional methods.

Business Games

The preparation and testing of business games for post-secondary and secondary school classes is a refreshing innovation in distributive education research. Ashmun (1961) prepared and tried out a non-computer business game to teach post-secondary students the mathematical relationships in a business operation. He concluded that the game was not only useful in teaching this subject matter but that it helped to develop certain important business attitudes. McClanahan (1964) used a similar game on the same kind of subject matter at the high school level and reported favorable results.

Case Problems

Case problems continue to be a popular source of instructional material; however, the quantity of materials of this kind based on research is very limited. Kieffer (1959) prepared 20 case problems for

teaching human relations to high school and post-high school distributive education students. Mayer and Goldstein (1961) included some excellent case problems in the Small Business Administration publication, The First Two Years: Problems of Small Firm Growth and Survival.

Job Study Guides

The preparation of job study guides to meet degree research requirements seems to have waned in recent years. White (1958) prepared several guides in the women's ready-to-wear field. Fuerst (1959) prepared individual study guides for jobs in retailing paint and wallpaper. In light of the current interest in programmed instruction and the advantage of the program's being a self-contained instructional unit, we may expect the trend to be toward programmed instruction in fulfilling the need for individual study of merchandise information.

Programed Instructional Materials

Although large retail firms such as Sears Roebuck and Montgomery Ward use programmed instruction in teaching store system, the amount of material programed by distributive educators is small. Kohns (1963) programed instruction in the use of the Coit pen in showcard lettering and invented a view-box for testing the accuracy of the lettering. Goodenough (1965) prepared auto-instructional material on pricing and profits which he used in an experimental study of the relative effectiveness of programed instruction. Embertson (1965) prepared a linear auto-instructional program in money handling and the use of the cash register for the distributive education student. Hartzler produced a programed textbook in salesmanship for adults which was used in an experiment directed by Russell (1966). Experimental work with programed instruction will be described later in this review.

Role-Playing Problem Situations

Role-playing situations were developed in only one study reported. Hinsverk (1963) reviewed the literature on role-playing, surveyed the ways it was used in Minnesota, and developed 21 role-playing problem situations on employer-employee and co-worker relations. Harrison (1957) investigated the importance of role-playing in developing an employable personality.

Material for Students With Special Needs

A curriculum guide for teachers of marketing and distribution, entitled Basic Instruction for Personal Employability, was prepared under contract for the U.S. Office of Education (1965). Although no mention is made of supporting research, current interest in this content field and the composition of this document seem to warrant its being called to the reader's attention in this review.

Facilities for the Care and Use of Printed Materials

Two studies have dealt with the preparation for use and care of printed material, a difficult problem for many distributive educators. Figge (1957) tried out several filing procedures and prepared a system of classifying and filing bulletins, pamphlets, and other reference materials. Duxstad (1963) devised a system for preparing, indexing, and filing trade magazine articles.

Job and Community Resources

The business community continues to be a rich source for instructional content. Numerous studies described in this review under the section on curriculum development illustrate the various kinds of

subject-matter content derived from employers, employees, customers, and others associated with the business community. However, no mention has yet been made of the use of the job and the community as a laboratory for distributive education classes. The following discussion will deal with this aspect of the distributive education program.

The Value of Occupational Experience

For a very large majority of the students, occupational experience is very beneficial in their preparation for careers in distribution. Bicanich (1964) reported that Minnesota distributive education students ranked the effectiveness of co-workers, training-sponsors, and on-the-job training very high. Dorn (1961) found that South Carolina graduates of high school distributive education programs rated on-the-job training excellent. Henkel (1965) found that graduates of Wisconsin post-high school marketing programs who worked in marketing related fields felt that their work experience had been of benefit to them in their full-time employment since graduation. Hermanstorfer (1962) interrogated Iowa school superintendents who reported that cooperative programs are definitely worthwhile and deserve an increasingly important place in the curriculum of their high schools. Jones (1957) found that Pennsylvania high school principals believed that coordinator and student contacts with merchants were important factors in improving public relations with the business community.

Needed Improvement in On-The-Job Experiences

Insufficient research has been done on the on-the-job experiences of cooperative program student-workers. That much improvement is needed in this phase of cooperative education is indicated by the fact that six of the 14 case-problems on weaknesses in coordinating practices collected by Dorr (1962) related to situations on the job--two pertain to planned coordination calls, two to training-sponsors, and two to the selection of training stations. Perhaps the most comprehensive study of the occupational training segment of cooperative education at the high school level was done by Gradoni (1957) who investigated 14 programs and 157 training stations in New York State. He concluded that: (1) increased merchant support, adjusted work schedules, and better use of participating training stations could minimize the problems created by the seasonal nature of retailing and the need for continuity in work experience; (2) the use of advisory committees should result in better coordination between program activities and community employment needs; (3) all trainees should obtain required work experience; (4) teacher-coordinators should make greater use of specialized instructional techniques particularly suited to cooperative work experience; (5) the time allotted for coordination duties should be devoted to such work, and school officials should require written coordination reports; (6) many training station problems could be avoided by the use of written training agreements; and (7) school personnel should assist merchants in developing more effective methods for evaluating trainee and graduate work performance.

Distributive Occupational Adjustment Sources

Perhaps one of the most active areas of distributive education research in the years ahead will be occupational adjustment. Reference was made earlier to the following studies which relate to this field: Lombard (1955), Clark and Sloan (1962), Rosenwinkel (1957), Johnson (1958), and Wiklund (1958).

Club Resources

Although the Distributive Education Clubs of America membership has experienced excellent growth and is highly regarded in most states as an integral part of the distributive education program, very few research studies dealing with clubs and co-curricular activities were located. At the time of the Warmke study (1960), 82 per cent of the nation's distributive education leaders indicated that the primary purpose of the distributive education club should be educational. Two-thirds of them believed that post-high school distributive education students should be permitted membership in DECA but felt a separate section with its own objectives should be established. Bicanich (1964) reported that 88 per cent of Minnesota high school distributive education students rated the club as being important to the distributive education program and approximately 80 per cent of them felt that the club was of personal benefit to them. His study also showed that students belonging to distributive education clubs were better satisfied with the distributive education program. Henkel (1965) found that the majority of the respondents in a survey of graduates of Wisconsin post-high school marketing programs felt that participation in club activities had been of benefit to them in the

following ways: (1) it improved their ability to meet and deal with people effectively, (2) it developed leadership abilities, (3) it helped them improve their self-expression, (4) it helped them develop self-confidence, and (5) it provided them with a better knowledge of marketing.

Samson's study of critical requirements of Iowa distributive education teacher-coordinators (1964) revealed eight effective and eight ineffective behaviors in the category, "Direction of Club Program and Project." The effective behaviors are as follows: (1) assists student in DECA projects and actively aids and trains them in preparation for contests, (2) provides suggestions for fund-raising activities and helps students carry out projects, (3) exercises personal control over some club activities and forcibly directs students' participation in some functions, (4) assists in the club's organization and administration but allows students to make operational decisions, (5) promotes the club program and its activities through banquets, blazers, recognition events, and all school involvement, (7) informs students of conduct expected at leadership conferences and enforces compliance, and (8) enters into club meetings and social activities as leader and participant.

M. Buckner (1964) prepared a student handbook for the Florida Association of Distributive Education Clubs of America drawn from information found in materials from 11 states and from a survey of the opinions of 32 Florida teacher-coordinators. Robeck (1956) recommended a procedure for evaluating all kinds of cooperative education clubs in Minnesota. A number of effective distributive education practices related to the club were listed in the Ovsiew directed study (1960).

McGee (1965) studied the problems of beginning teachers in 13 states and found the following difficulties relating to community activities: (1) getting participation in club activities, (2) effectively conducting all contests sponsored by DECA, and (3) getting students interested in club work.

Cottrell (1966) devoted an entire study to factors influencing student participation in distributive education clubs in Minnesota. He came to the following conclusions: (1) club activities are a necessary and valuable part of the total distributive education program; (2) coordinators do not clearly understand the goals and objectives of the distributive education club; (3) the cooperative education program does reduce participation in extra-curricular activities other than the distributive education club; (4) students need to participate in an organization in order to develop effectively certain skills; (5) administrative policies in some schools prevent clubs from using selling activities for fund-raising purposes; (6) a large number of coordinators really do not understand their students' opinions and attitudes; (7) many coordinators are perplexed by the role of the coordinator in club activities; (8) many prospective students are not effectively introduced to the club program; (9) some students need encouragement to participate in various club activities and their coordinators do not know how to motivate them; and (10) more effective methods of publicity and promotion are needed on the local, state, and national levels.

Teacher Characteristics

Teacher characteristics and teacher-coordinator qualifications for various distributive education positions have been controversial topics since the inception of the program and have been researched relatively often. It was recognized from the outset that a certain amount of experience in distributive occupations, a certain amount of course work in the content field, and a certain amount of professional education are necessary to insure sufficient competency to direct the learning of students in distributive education classes. Since no measure of teaching effectiveness has been agreed upon, research has been limited to surveys of the opinions of various authorities in business and in education and to tabulations of state plan certification requirements. Consequently, findings vary widely.

In addition to occupational and educational requirements, certain personal characteristics are needed for successful teaching in various distributive education positions. Administrators, supervisors, and teacher educators have been concerned about the identification and development of these traits, and research is being carried on to find answers to problems in this area of study. To summarize the results of research on either certification requirements or personal qualifications would be very difficult. Therefore, these studies will be described briefly and only occasional findings will be discussed.

Certification Requirements

The Emick study (1936) gives a complete description of secondary school teachers of cooperative retail selling classes including institutional preparation, majors, minors, graduate majors and minors,

teaching experience, business experience, certificates held, professional activities, and teaching load. While the figures are of little current value, the scope and depth of the report makes reading it worthwhile. Keeling (1946) did a descriptive study of the distributive education coordinator. Another earlier analysis of the activities of distributive education coordinators of federally-reimbursable high school programs was made by Cassady (1950) based on Illinois personnel. Willis (1954) gathered data from state plans, correspondence, and personal interviews on certification requirements throughout the United States and compared them with the opinions of a jury of experts. She found great variation in certification requirements for teacher-coordinators and some variation between existing certification requirements and those recommended by the jury.

Warmke (1960) studied 10 minimum requirements for eight distributive education positions (adult instructor, evening-school coordinator, area supervisor, state supervisor, and teacher educator) by surveying the opinions of more than 50 carefully selected leaders. Means, modes, and standard deviations were calculated for general professional education, specific professional education, technical education, full-time occupational experience, part-time occupational experience, supervised occupational experience, student teaching, and previous teaching experience. The leaders felt that objective requirements could never serve as the complete answer in selecting distributive education personnel, that high standards are difficult to maintain but are imperative, and that distributive education teachers were better qualified than previously. The majority (58 per cent) of the respondents considered the minimum requirements issue to be of major

importance in determining effective operating procedures in distributive education; 35 per cent considered the issue as crucial.

Personal Characteristics

Personal characteristics are implicit in the lists of effective and ineffective behaviors of Iowa distributive education teacher-coordinators in the Samson study (1964). Each of the 127 critical requirements relates to a personal characteristic. For examples of critical behaviors, refer to the discussion of club resources on page 69. Samson collected 1,548 usable critical incidents which produced 1,574 critical behaviors. These behaviors were classified into six areas of distributive education teacher-coordinator responsibility as follows:

- I. Student Discipline and Control
- II. Direction of Club Program and Projects
- III. Administration and Operation of the Program
- IV. Instructional Activities
- V. Coordination
- VI. Personal and Professional Relationships

A stereotype of an Iowa teacher-coordinator may be discerned from studying the effective and ineffective behaviors. Generalization to characteristics in other states depends on the degree of similarity of the population of the sample and the group for which the generalization is to be made.

Harris (1965) compared Illinois distributive and office occupations teacher-coordinators on the basis of critical requirements and on reasoned-judgment responses to 20 selected issues treated in the Warmke study (1960). Sixty-one critical requirements were delineated for the

distributive education coordinator and 16 for office education teacher-coordinators. The Illinois office education and distributive education teacher-coordinator groups were in closer agreement with each other than either group was in agreement with the national leaders of distributive education of 1959 in their responses to a majority of the selected issues. One may speculate as to whether this is a function of supervision and training or of the time interval between the gatherings of the data.

Instructional Methodology

In order to comprehend the instructional methodology of distributive education, one must first understand the characteristics of the competencies required in distributive occupations. Although the distributive occupations are numerous and diverse in nature, there are certain competencies which, in the minds of many practitioners and seasoned educators, distinguish them from other occupational groups. No research was located which confirms this belief. However, the studies which inventory distributive education teaching methods reveal a pattern of instructional methods which are easily identifiable. This pattern of instructional methodology has developed empirically out of teaching experiences in a field which, through the years, has been closely attached to the occupations it serves. Nearly all distributive educators agree that most distributive occupations do not require a high degree of manipulative skill and that a large number deal with the use of factual information, choice-making among numerous variables, the use of good judgment, and decision-making abilities. Many of them involve contact with customers and numerous co-workers. Effective domain outcomes are usually very important, and so on.

The review of research which follows immediately will describe the studies which treat distributive education instructional methodology in general--the kind of teaching methods used, preferences of learners, and so on. Thereafter, studies dealing with particular methods and learning devices will be discussed.

Instructional Practices

Instructional practices have not changed a great deal through three decades, probably because of the prevalence of accompanying occupational experience. As in other aspects of the program, the earliest research to come to the readers' attention was the Emick study (1936) which dealt with data collected during the school year 1932-33. The rank order of the methods of presenting subject matter was as follows: (1) discussion of problems encountered by the students in their store practice; (2) demonstration sales by the pupil; (3) text or reference assignments and subsequent class discussion; (4) the assignment of problems; (5) group discussion of assigned problems; (6) addresses by businessmen, store managers, personnel directors, and others; (7) lectures by the teachers; and (8) demonstration sales by the teacher. Emick explains that problems may take any number of forms, the most common one being the preparation of project books or merchandise manuals. He generalized by saying that the training in most schools was being offered from a practical rather than a theoretical standpoint as indicated by two facts: (1) the methods under which the teacher plays an important part either by demonstrating sales or by lecturing are infrequently mentioned, and (2) methods under which pupil learning activities are emphasized are frequently mentioned. Other methods mentioned were trips to stores, dramatizations, special

merchandise reports, student reports on merchandise research, reading trade journals, moving pictures, getting merchandise information from producers, reading store manuals, preparing job manuals, tests of materials, reports on interviews with store executives, writing of special sales manuals, and use of the contract plans. The methods most frequently mentioned were also those found to be most successful by the teachers responding to the inquiry. Practices varied in regard to the amount of time when pupil's store experiences were discussed.

Weale (1950) gathered information on the effectiveness of teaching methods reported by 40 New York State "coordinator-instructors." The rank order was as follows: (1) demonstration, (2) discussion, (3) field trips, (4) films, (5) oral reports, (6) speakers, (7) project manuals, (8) case method, (9) lecture, (10) workbooks, and (11) diaries. Donaldson (1958) had several hundred Illinois students rate 25 classroom activities. The first 12 were as follows: (1) talks by businessmen, (2) giving sales demonstrations, (3) movies, (4) discussion of job problems, (5) discussion of text material, (6) field trips to other communities during class time, (7) field trips to local community during class time, (8) individual conferences with the teacher about job and other problems, (9) taking objective examinations, (10) observing sales demonstrations in class, (11) putting in window displays, and (12) viewing sound-slide films.

As a result of a study of the recognized needs of independent retail store owners in selected California cities, Kunsemiller (1962) drew several conclusions relating to instructional methodology. They were: (1) a management program for small businessmen should develop a broad range of interests in preference to over-specialization; (2) education for small businessmen should develop analytical abilities and

discriminatory capacities of conceptualization; and (3) teaching methods involving case problems, management games, and role-playing should be expanded. Johansen (1963) concluded that on the basis of the National Study of Secondary School Evaluation there were major strengths in the area of instruction in Iowa distributive education programs; there were major weaknesses in instructional materials; and there were major strengths in the area of methods of student evaluation and appraisal. The list of 25 effective and 14 ineffective instructional activities in Samson's critical requirements study (1964) warrant careful study by scholars in educational methodology because of the emphasis on individualized assistance in learning. The first four effective behaviors were: (1) counsels with students and provides individual help on problems connected with jobs, training-sponsors, or other related actions; (2) gives special training to individual students, building up skills in necessary areas, and providing suggestions on how to improve classwork; (3) conducts individual conferences with students on their personal problems or behaviors (grooming, personality, attitude, etc.); and (4) counsels with students on educational plans, encourages them to continue their education and not to drop out. Harris (1965) developed similar lists and found that the same kind of critical requirements, for example, (1) holds conferences with students who need improvement and provides them with positive suggestions for improving, and (2) effectively utilizes the resources of local business establishments to supplement the instructional facilities of the school.

Instructional Methods and Devices

Very little research on instructional methods and devices has been done other than frequency counts of the methods used and preferences for various methods. Perhaps the most important reasons for this situation are the lack of proper conditions for methods experiments, the absence of measuring instruments which actually measure the proper desired outcomes, and the lack of sophistication in educational research design and use of statistical tools on the part of researchers up to this time. While a number of studies deal with the production of materials for use by teachers in administering an instructional method such as the case problem, less than a dozen investigations treat the value of one method as compared to another in a given instructional situation or actually pursue the techniques of administering a method. The discussion that follows includes studies on the value of an instructional method, the construction of teaching devices, the use of projects, and the measurement of instructional outcomes.

Business Games

Perhaps it was Ashmun (1966) who did the first purely experimental study in distributive education. He compared the effectiveness of a non-computer business game in teaching post-high school students mathematical relationships in a business operation with a traditional lecture-discussion method. A three-way analysis of variance was used. He found that students taught with the use of the business game obtained higher mean scores on a test constructed for the purpose with a probability of greater than .10 but less than .05 that the difference was attributed to chance. Higher-ability students as

measured by American College Test scores in both experimental and control groups did better than low-ability students. Fourteenth-year students obtained higher, but not significantly higher, mean scores on the unit achievement test than did thirteenth-year students. The students who participated in the business game reacted in a highly favorable manner to this instructional method.

Retail Merchandising Conference

Kokjer (1951) did a doctoral study on the retail merchandising conference as a technique in distributive education. (Results of the study are not included in this review because materials were not available for examination in time for publication.)

Programed Instruction

Kohns (1963) used programed instruction and a "viewbox" which he designed for self-evaluation of showcards, to teach Coit's pen lettering. He concluded that the students mastered the skill in 15 hours as compared to 25 hours when the machines were not used. He concluded that students could better acquire lettering skills at their own best rate of learning, that the machines provide immediate learning reinforcement without fear of subjective teacher criticism, and that the student is better motivated in that clear-cut learning goals are presented by the programed instruction.

In a master's paper, Goodenough (1965) compared the relative effectiveness of the auto-instructional method with the lecture-discussion method in teaching the mathematics of pricing and profits. A t-test was used to test the significance of the differences between mean scores of experimental and control groups on a unit test and on

the final examination for the course. The difference was not significant at the .05 level of confidence although the instruction seemed to be as effective as the conventional method. Student opinions regarding the auto-instructional materials revealed a co-operative attitude and general approval of the use of the material and an appreciation for being able to work at their own speed and to see and correct their own mistakes.

As mentioned earlier, Embertson (1965) constructed an auto-instructional program in money handling and the use of the cash register. From the methodological viewpoint, his contribution lies in the procedure he used in constructing the program.

Clark and Sloan (1962) pointed up the value of teaching machines to many merchants who cannot afford an educational program, even though the need for one is recognized. Seven pages of their small book is devoted to a discussion of teaching machines in stores.

The most recent study of programmed instruction to be reported was done by F. E. Hartzler under the direction of Russell (1966). The purpose of this study, which was funded through the Small Contract Program of the Cooperative Research Branch of the U.S. Office of Education, was to develop a programmed text in salesmanship for testing feasibility in adult education. It was the impression of the investigator that the program was very successful and the college printed an additional one thousand manuals at its own expense in order to continue the program. The summary of the report indicated that this type of program is particularly useful in areas of sparse population and wide geographical range.

Role-Playing

Earlier it was mentioned that Hinsverk (1963) developed a score of situations suitable for role-playing. Prior to doing so, he conducted a survey of Minnesota teacher-coordinators to determine the extensiveness and frequency of use of this method in teaching employer-employee and co-worker relations to distributive education students, and to determine the kinds of problems encountered in teaching this material. He found that they were using role-playing to teach salesmanship but not often as a means of teaching employer-employee and co-worker relations. He also found that the teaching problem causing the most difficulty was that students are inexperienced and do not know how to involve themselves adequately. He recommended that role-playing be used only after careful consideration of class objectives and that students should be encouraged to create role-playing situations from their own experiences rather than using a situation that they have not experienced.

Service Shopping Report

Bikkie (1957) designed a service shopping report for use in retail and service establishments and in education, either as a device to be used by students in shopping sales personnel for learning purposes or as an evaluative instrument to measure the student's performance in a sales situation. The study revealed the differences in desired sales practices of managements. For example, some firms desired strictly "soft-sell" methods and preferred that their sales force follow such practices.

Projects

Strongin (1965) designed a marketing research project and carried it out with members of her Oceanside (New York) High School chapter of DECA. The study dealt with supermarkets and self-service areas of Abraham and Strauss department store.

Measurement of Learner Achievement

Callister (1966) constructed a test to measure competencies in sales promotion--advertising display and public relations. He used a purposive sample of sales promotion specialists to identify needed entry occupations competencies. A panel of sales promotion specialists was used to determine course objectives, to construct a course outline, and to supply initial items for a 100-item objective type test. The use of open-end test questions in pilot tests were given to students to obtain appropriate distractors for multiple-choice items. This practice was not satisfactory. The test was administered in four schools to determine the difficulty level of the questions, the discriminatory factor of the questions, and the suitability of the questions for high school distributive education students.

The Administrative Factor

The last component of this section of the review and synthesis of research is the administrative factor. In a systems approach to educational problems, consideration is given to (1) system objectives, (2) to resources, and (3) to means of achieving the system objectives. In the preceding section on instructional methodology means of achieving the system goals and objectives via the instructional staff were

discussed; but the instructional staff is not the only group responsible for the character of the instruction. Those who administer the program also influence its character and, therefore, are an integral part of the description of the means of achieving objectives. Sometimes, as in cooperative education, a person has a combination of responsibilities which include a large measure of administrative responsibilities. The discussion that follows treats only those administrative aspects of distributive education that directly influence instruction.

Policy Making and Planning

Policy making and planning should start with the program's purposes and objectives. As indicated in the section on curriculum development, little research has been done to date in this area. Warmke (1960) used national leaders to react to the purposes of programs at the high school and post-high school levels when one or the other existed separately and when both were present. Two-thirds or more of the respondents expressed the preference that high school students should prepare for initial employment on specific jobs and that they should learn certain management concepts applicable to distributive occupations in general, whether or not a post-high vocational distributive occupations instruction was offered. When this kind of instruction is available in both the high school and the post-high school institution, 53 per cent of the respondents indicated that post-high school students should be prepared for initial employment on mid-management positions and that the concentration should be on learning management concepts. Opinions were divided on the purpose

of instruction for post-high school students when no vocational distributive occupations instruction is offered in the high school. Both Warmke (1960) and Harris (1965) collected opinions as to the eligibility of students for the high school program. A majority of the respondents were of the opinion that cooperative classes on the secondary school level should be open to those who want the instruction, are considered employable, and who plan to pursue a career in distribution. They also thought that college preparatory students should be allowed to enroll in high school cooperative distributive education classes if they are considered employable and plan to study distribution in college. More than 70 per cent of the respondents in the Warmke study were of the opinion that in either the high school or post-high school institutions classroom instruction and on-the-job experience are of equal importance. More than four-fifths of the same respondents felt that high school classroom instruction for cooperative student-trainees should be limited primarily to content specific to distribution, but with occasional instruction (when needed) in other subject areas such as English, mathematics, and social studies. Fifty-five per cent of them expressed the same opinion regarding the post-high school program. Other than this, there is little "scientific" evidence to back up the program's purposes and objectives. Gradoni (1957) concluded that aims and objectives must be restated in terms of the more immediate and measurable goals--a recommendation that still has not been fulfilled. Wilson (1963), over a period of several years, developed a cooperative program for a low-income community in Nebraska.

Follow-Up Studies of Graduates

Follow-up studies of distributive education graduates have been disappointing from the standpoint of providing verifiable information on instructional outcomes. Jones (1957) found that the lowest accomplishment with relation to the curriculum organization factor was reported in using follow-up studies of graduates as a guide to curriculum revision. However, Warmke (1960) found that distributive education leaders believed that follow-up of graduates and drop-outs were of sufficient value to justify the time and expense involved in conducting them.

Advisory Committees

In view of the small amount of valid supporting evidence from other sources, the advisory committee has come to serve as a consulting group on matters of local objectives and policy formation. Gradoni (1957) recommended that the use of advisory committees in New York State should result in better coordination between program activities and community employment needs. Warmke (1960) submitted 11 issues regarding advisory and steering committees to distributive education leaders to establish a number of beliefs about their value and use. Ovsiew (1960) listed 10 successful practices on the use of advisory committees.

Administering the Cooperative Program of On-The-Job Learning

Research on operating practices affecting the quality of learning that takes place on the job in cooperative programs appears in

relatively greater quantity. Unfortunately or fortunately, there seems to be a discrepancy between what leaders and administrators think ought to be done and what actually transpires. While the Gradoni study (1957) is based on only a single state at a given point in time, it serves to alert those responsible for program administration to the need for research. Gradoni recommended that the time allocated for coordination duties should be devoted to such work and that school officials should require written coordination reports. He concluded that (1) many training station problems could be avoided by the use of written training agreements, (2) school personnel should assist merchants in developing more effective methods for evaluating trainee work performance, and (3) increased merchant support, adjusted work schedules, and better use of participating training stations could minimize the problems created by the seasonal nature of retailing and the need for continuity in work experience.

In appraising the contribution of Ohio's cooperative program training stations, Barton (1960) found that (1) job assignment procedures for distributive education students did not comply with objectives established by the State Department of Education, (2) job rotation did not take place often, (3) job instruction procedures rarely satisfied the objectives, and (4) coordinators did not have the proper materials for related study. On the other hand, he found that evaluation procedures for distributive education student-trainees ordinarily did meet the objectives. These studies point to the need for administrative practices and devices to improve the quality of learning on the job.

Research on Hours and Wages
for Cooperative Student-
Trainees

Hours of work and wages of secondary school student-trainees has been a popular subject of inquiry from the program's beginning. Emick (1936) provided an inventory of wage and hour practices. Warmke (1960) and others provided information on pooled judgments of administrators, teacher educators, and coordinators on maximum and minimum hours a student should work, on using Saturday work to meet legal requirements, and on working during school holidays. Current information on these topics is important in instructional planning and in program administration. It is relatively tangible and easy to collect.

STUDENT PERSONNEL SERVICES

The number of distributive education research studies relating to secondary school guidance is relatively high but there are virtually none in the adult field. Within the area of guidance itself, the largest number of studies deal with the dissemination of information--particularly occupational information. The first group of studies to be discussed in this section of the review will deal with a persistent problem--that of defining the guidance duties and responsibilities of the distributive education teacher-coordinator. Succeeding sections will deal with studies relating to five guidance functions: (1) the appraisal, evaluation, and selection function, (2) the information and dissemination function, (3) the counseling function, (4) the placement function, and (5) the follow-up function.

The Teacher-Coordinator's Role in Guidance

Although all teachers are said to have guidance functions to perform, the duties and responsibilities of a distributive education teacher-coordinator seem to be more extensive in most schools, largely because placement of cooperative program students in training positions in the business community is an integral part of his job. Problems arise as to what guidance, counseling, and personnel services he should be responsible for; which aspects of the appraisal service, the information service, or the counseling service he should share or participate in; which aspects of these responsibilities should be assigned to others; and so on. It is difficult to answer these and similar questions at this time with anything other than the opinions of qualified authorities.

Guidance, Counseling, and Personnel Service Tasks

Perhaps the most valuable list of the tasks of a distributive education teacher-coordinator at the present time is that compiled by Samson (1964) as a part of his critical requirements study of Iowa teacher-coordinators. While Samson did not establish a category for guidance tasks, they may be found in Category Three, Administration and Operation of the Program; Category Four, Instructional Activities; and Category Five, Coordination. Also, some of the tasks in Category Six, Personal and Professional Relationships, which relate to students, might be classified as being primarily guidance in nature. Harris (1965) prepared a similar list of critical requirements of teacher-coordinators of Illinois. In his study, guidance tasks are

listed under Category Two, Selection of Training Station and Placement Activities; Category Three, Evaluation and Selection of Students; Category Four, Personal and Professional Relationships; Category Five, Adjusting Student Training Station Performance Problems; and Category Six, Adjusting Student Problems. Earlier studies of the distributive education teacher-coordinator, such as those of Keeling (1946) and Cassady (1950), which the reviewers were unable to examine, undoubtedly deal with guidance duties as well as many others. This also is probably true for a recent study of New Mexico Coordinators by Lloyd (1965), which was unavailable before the deadline date for this report.

Role Conflicts

Helling (1963) used a questionnaire to study the role perceptions of Minnesota distributive education teacher-coordinators and guidance counselors. He listed 40 tasks and forced the respondents (more than 90 per cent in each group) to answer the question, "If only one person could handle the job, who should it be?" A chi-square statistic was used to determine if the two groups agreed in the direction of their voting and to determine whether or not a majority was significant in the group as a whole. Six tasks on which there was no agreement were (1) use of the Dictionary of Occupational Titles (D.O.T.) as well as other sources for interpretation to distributive education students, (2) first screening of applicants for the cooperative program, (3) counseling former cooperative program students, (4) assisting pupils in solving their educational problems pertinent to the cooperative program, (5) placement of students not in the

distributive education program on jobs, and (6) responsibility for the cooperation of business personnel on "Career Days."

The Appraisal, Evaluation, and
Selection Function

Gradoni (1957) concluded that in New York the confusion that existed regarding students' qualifications for cooperative work training had to be resolved through the joint efforts of school officials, coordinators, and employers. This question struck at the roots of the distributive education program; namely, the designation of the students to be served. Was the purpose of the program to be primarily vocational education, general education, or both? Later, Warmke (1960) obtained the opinions of the leaders in distributive education and found that on the secondary school level the program was for those who wanted the instruction, are considered employable, and who plan to pursue a career in distribution. Respondents indicated that college preparatory student should be allowed to enroll in high school cooperative distributive education classes if they are considered employable and plan to study distribution in college. Harris (1965) asked Illinois distributive education coordinators the same questions. The larger percentages of them responded in the same way but with less concern for the requirement that the students pursue a career in distribution. The requirement of employability seems to persist; thus, there is some commonly accepted basis for admission standards, although they may be broad.

Student Appraisal

Although many different kinds of tests have been administered to distributive and other vocational students during the past decade, little research work has been done which is designed particularly for young people who are considering careers in distribution. On the other hand, adult norms have been established for various kinds of distributive occupations on any number of tests.

Kunsemiller (1962) studied above-average and below-average independent retail store owners in selected California cities in terms of their management knowledge, procedures, problems, personality characteristics. He concluded that the Structured-Objective Rorschach test is potentially an additional means of obtaining information for student counseling and advising.

As mentioned earlier, Schadt (1965) found that marketing majors at Kenosha (Wisconsin) Technical Institute scored higher on the Minnesota Test of Creative Thinking, Abbreviated Form VII.

Wallace (1960) conducted a study to determine whether creative thinking ability contributed to high sales productivity for experienced female salespeople and whether it affected the amount of service the salesperson gave a customer. He found that (1) the mean scores of those employed in high-service departments were significantly higher than those employed in low-service departments; (2) mean scores of those with high sales productivity were significantly higher than low producers; (3) the performance of the group classified as low in both variables was considerably lower than the other groups in measured creativity while the high group in both variables obtained higher mean scores. There was no significant interaction between the two

variables and the differences between total mean scores were significant at the .05 level. Later, Wallace (1964) followed up his earlier study with a study of creative thinking as a factor in the performance of industrial salesmen. His subjects were 223 sales and marketing executives, division sales managers, industrial salesmen, and consumer salesmen employed by the Reynolds Metals Company. Using appropriate statistical tools on the data gathered, he arrived at the following conclusions: (1) top-level sales and marketing executives and certain industrial salesmen are more fluent and original in producing ideas than other members of the sales force; (2) top-level executives are more able to exercise curiosity in questioning and forming hypotheses about causes and consequences than are the others; (3) industrial salesmen with a relatively high degree of technical training and education are more prone to elaborate on ideas in pictorial or figural form than those without such training; and (4) salesmen ranked high in self-motivation are likely to be high in three kinds of creative thinking abilities--ideational fluency, originality, and figural or non-figural imagination.

Coffey (1949) studied characteristics determining success in non-selling positions in the distributive trades. He found that the Hoppeck Job Satisfaction Scale had little validity when used on an occupationally immature group. Coffey's study included the use of the Tiffin and Lawsche Adaptability Test, Form B; a store arithmetic test and a store systems test constructed for the purpose, the Minnesota Clerical Test by Andrew and Patterson, and the Kuder Preference Record. (The findings are not clear.)

Student Evaluation

Emick (1936) inventoried the admission and selection procedures of 37 schools in 1932-33. Personal, mental, and physical standards (including size of the student) were tabulated and exceptions to the standards were listed. Kraushar (1956) examined the skills, knowledges, and personal characteristics of 100 randomly-selected cooperative secondary school student-trainees employed in retail department, variety, chain, and specialty stores. Student-trainees were classified into six occupational groups: cashier, delivery boy, sales boy or girl, shipping and receiving clerks, stock worker, and wrapper. Data was collected by interview, analysis of published sources, rating sheets, and job element check lists. The rating sheet and check list, which the cooperating employers helped devise, was divided into four efficiency factors, 11 personality factors, and one physical factor. Kraushar found that the personality factors outweighed efficiency factors by two to one and the one physical factor by 12 to one. The degree of general acceptance of student-trainees by their employers was 22 per cent.

C. Mills (1964) described the academic status of high school cooperative student-trainees throughout the United States in large, medium, and small schools. Academic status was measured in terms of mental maturity scores, rank in respective graduating class, and overall grade-point average. Included were the school years 1954-55, 1957-58, and 1960-61. He found that: 80 per cent of the student-trainees had mental maturity scores of between 85 and 114; six per cent had scores below 85. More than 70 per cent of these students ranked in the lower half of their classes. Eighty per cent carried

average or below-average grades for all three of the years studied. Their achievement compared favorably with their abilities as reflected in their mental maturity scores. There was a greater tendency for them to complete high school than for their fellow students. The variety of enrollment methods used to select these students, along with teacher-coordinator turnover, may affect the academic level of students enrolled.

Leister (1964) examined the cumulative health records, clinical referral forms, and employer reports on 218 student-trainees and on 218 other students in Dallas (Texas) senior high schools. She found that the health problems were similar but that the distributive education students had more uncorrected defects and visited the school clinic more frequently. She also found that the families of the distributive education students were larger than those of the families of the general school population and the number living with both natural parents was significantly smaller than that of the other group.

Lucas (1964) constructed a profile of the students in the Ohio Wholesale Management Development program using as his sources of information their cumulative information files, American College Test scores, student questionnaires, and wholesaler questionnaires. There was a high degree of relationship between the student's grade-point average and his American College Test scores and high school percentiles. Lucas recommended that allowances should be made for possible delayed maturity and increased motivation of certain students.

Hartzler (1964) compared rural and urban youth on selected traits and abilities at the time of high school graduation. He found that

(1) the response of rural youth to supervision by strangers may be a difficult adjustment problem and that it may be disconcerting for them to consider supervision as an employment goal; (2) rural youth are more interested in salary and working conditions than urban youth and do not conceive of work as much of a source of satisfaction as do urban youth--an attitude that is particularly unfortunate in marketing and distribution where beginning jobs are low paying but promotion is likely; (3) they have a limited view of the range of occupations; (4) they have more personality difficulties and tend to be unsure of themselves in their dealings with other people; and (5) they do not have a high regard for the functions of marketing but do have a high regard for mechanical labor and for production. Hartzler concluded that there seemed to be two types of rural males: boys who want to leave the farm and those who do not. The first group, according to the review of the literature, showed them to be more sure of themselves and that they could adjust well to careers in marketing. Hartzler recommended that (1) before rural youth are trained in marketing and distribution they should be given a battery of tests to determine whether or not they can be happy in dealing with people, (2) that human relations training be included in their training, (3) that their training include working with strangers under supervision, and (4) that field trips should be included in their training to widen their vocational horizons.

Stark (1966) compared two Leavenworth, Kansas, distributive education classes (1962 and 1965) with other members of the senior class.

Selection Procedures

Heley (1958) did a study to determine an appropriate selection procedure for Idaho Falls High School. Mascari (1964) surveyed the recruitment and selection of students in cooperative distributive education programs in Illinois. The two methods that were used almost unanimously in recruitment of new students were personal interviews and application forms. Selection factors most frequently used were grades (31 per cent), teacher recommendations (25 per cent), student interest in distributive education (23 per cent), student attendance (23 per cent), and interviews with students (19 per cent). Requirements for enrollment in the distributive education program varied according to the type of plan under which a program operated. Jones (1957) found that 80 per cent of the coordinators received help from school counselors in determining students' aptitudes for distributive training.

Austin (1954) reviewed the research on the selection of sales personnel and found that interviews lacked both reliability and validity--even the guided or patterned interviews were lacking. About the only way salesmen could be differentiated from non-salesmen was by means of interest inventories. He concluded that research on sales personnel selection is still in an immature stage but that those responsible for the selection of salesmen have not taken advantage of the methods developed by research. He also concluded that little research was done by educators, either in predicting success in sales occupations or in predicting success in sales courses. He also concluded that no test or set of tests can be used by counselors which will provide positive assurance to guidance problems in distributive education.

The Information and Dissemination Function

For many years, distributive educators have been active in the collection and dissemination of information concerning careers in distribution and ways of preparing for them. Some educators have said that the people in distributive education have failed to differentiate between the techniques of selling merchandise and those of providing accurate information about occupations. Nevertheless, there are good, as well as mediocre, studies in the field of information and dissemination. The plan of discussion will be to describe the various research papers relating to occupational information first, then continue with a description of educational information, and close with a review of the dissemination practices.

Occupational Guidance Information

Notwithstanding the large number of people employed in distributive occupations and the large earnings in high school positions, the prestige of this field is not great in many educational circles. The required occupational competencies in most instances are difficult to measure and workers continue to enter the field without special training. For these and other reasons, the preparation and dissemination of appropriate occupational information is vital to the success of distributive education. The situation is reflected in the McGee study of the problems of beginning distributive education teachers. They were identified as (1) recruiting good students who can profit from the program, (2) guidance staff not knowledgeable about distributive education, (3) local school administration lacking proper understanding

of the program, and (4) other staff members considering distributive education as an easy course not designed for brighter students.

Another study which reflected the image of an important distributive occupation was the Meystre (1959) study of the salesmen in American novels from 1900 to 1958. His definition included traveling salesmen, specialty salesmen, and the Madison Avenue advertising man. He found no valid stereotype of a salesman; there was no uniformity of depiction of salesmen by novelists. The depiction of the salesman was, on the whole, such as to diminish his stature in the minds of readers. He pointed out the pre World War I salesman was not concerned with status seeking; the salesman of the 20's was; the salesman of the 30's had to work too hard to be concerned with status; and the post World War II salesman did most of this status seeking within the company he worked for.

Three very similar studies in different kinds and sizes of communities indicated that senior high school students' image of retail and sales occupations is not unfavorable during the time they are in school. Swenson (1960) surveyed the high school student body of an agricultural community of 10,000 population; Levendowski (1961) did a similar study in Hayward, California, a city of 75,000 people in the San Francisco Bay area; and Akenson (1961) replicated the Swenson study in a middle-class suburb of Minneapolis. The general attitude of students toward retail and sales occupations was quite favorable. They reacted positively toward working conditions, working hours, and the amount of skill and training needed in retail sales work. They were most critical in their attitudes toward wages and job security in retailing. In general, girls were more critical of retail sales

work than were boys; seniors were more critical of retail store and selling occupations than were sophomores and juniors. Urban students in the agricultural community held more favorable attitudes toward distributive occupations than did rural students. This is in agreement with the Hartzler study findings. In each city, the factor considered most important in the selection of an occupation by students was finding an occupation that matched their abilities and interests. Wages were second in the two larger communities and third in the agricultural community. Security was second in the agricultural community and third in the other two communities. Opportunity for making a social contribution was fourth in all three communities; working conditions was fifth. Independence and working hours were ranked sixth or seventh. Parental approval was ranked eighth; and prestige was ranked last. Griffith (1961) studied the duties of training directors in selected business firms of the San Francisco Bay area. This study provided information of guidance value.

Descriptive Occupational Studies

A number of degree studies deal with descriptions of occupations--some with occupations within a certain kind of business such as a variety store, some with clusters of occupations such as advertising and sales promotion, and some with an occupational level such as beginning jobs or managerial positions. Haines (1955) used personal interviews to analyze the backgrounds of 170 workers in limited-line stores by sex, job level, line of merchandise handled, type of store ownership, and city in which they were employed to discover differences which might be of value in guidance and curriculum planning. Using the Kruskal-Wallis H-test of significance, he found no identifiable

patterns of value for these purposes. However, the need for early occupational guidance and early occupational experience was substantiated. Jefferson (1963) studied the backgrounds of 200 randomly-selected variety store managers in Illinois. He found that four out of five of them received their first occupational experience in some phase of retailing and distribution and that 30 per cent of them indicated they had a family member in retailing. Johns (1962) collected background information on managers from 157 business and industrial firms in the Denver metropolitan area. He found an increasing number of the management team personnel coming from background where the father's occupation was in agricultural, skilled, or semi-skilled category; and that an individual who had brought some experience into the firm from a dissimilar organization, or was employed in the firm for several years before moving up through the ranks, was successful. Harms (1963) surveyed 75 leading retail stores throughout the nation and found that no definite standards or requirements for entrance to the field of retail clothing had been established and that there were a number of paths of preparation available for women anticipating entrance into this field: direct entrance after high school, a two-year retailing school, or four years of college with a variety of majors. Personnel managers recommended part-time work experience as an extremely helpful background.

Local Descriptive Occupational Studies

Local occupational information is of particular value in guidance work. Some examples of this kind of investigation are the Fray study (1963) in which beginning jobs in selected retail firms in Emporia,

Kansas, were analyzed; Newlin's study (1961) in which he inventoried distributive occupations open to recent high school graduates in selected retail stores in Sacramento; and the Maggi study (1958) involving an occupational survey of officers and sales personnel in Orville, California.

Career Monographs

Marr (1958) used National Vocational Guidance Association criteria in appraising 224 occupational information monographs from 54 different publishers covering 18 broad fields of distributive occupations. Approximately 100 of the monographs were considered as acceptable. A list was published which has not been revised. Marr concluded that a great deal of information about distributive occupations is available, that the best available criteria is that of the N.V.G.A., that most of the monographs are relatively inexpensive, that one of the weaknesses in the area of occupational information was the lack of research, and that information of this kind should be used in a continuous learning process and should always be readily available to the students.

Educational Guidance Information

One side of the occupational guidance information coin relates to the facts about the nature of an occupation and the competencies required to enter and succeed in it; the other side treats the appropriate information about the ways a person may prepare himself for a career in the occupational field. Some of the studies reported here deal with both kinds of occupational guidance information.

Guidance Information about Secondary
School Education for Careers
in Distribution

A number of the evaluative-type studies discussed earlier in the Curriculum Development section of this review, and many studies to be discussed later in the section on Evaluation, have a bearing on guidance information about secondary school education for careers in distributive occupations. Looking at the meager research evidence at hand, one may question the advisability of placing a great amount of confidence in the ability of large groups of businessmen to judge what subjects should be taught in school at any level. The ability of businessmen to judge the quality of job performance of an individual or to identify the strengths and weaknesses of employees in terms of their firm's objectives cannot be easily refuted, but assigning businessmen the responsibility of recommending courses of study is subject to question. The Jefferson study (1963) mentioned earlier illustrates this point. Of the 200 variety store managers, 90 per cent were over 35 years of age (from 10 to 17 years removed from their high school or college courses). Regarding formal education, 46 per cent completed high school; 41 per cent had some college work; 21.5 per cent had 16 years of education. The composition of this group from the standpoint of years of formal education completed provides some indication to their qualifications to judge curriculum at the various levels. Jefferson concluded that the respondents tended to recommend courses similar to those they had taken themselves, including English, bookkeeping, general business, business management, and economics. Specific retailing courses were not often listed as having value (perhaps because the respondents

had not taken them and did not want to make a judgment). Managers recommended taking high school business education courses, work experience, four years of college training, and chain company training programs.

Guidance Information about Post-High Education for Careers in Distribution

Two of the studies examined contribute to the store of information about educational guidance at the post-high school level. In following up the graduates of marketing majors in Wisconsin technical institutes, Henkel (1965) received the following suggestions for course additions: speech, more English, buying, and math. These suggestions represented felt needs of graduates who were not far removed in time from their course work. They also recommended greater choice of electives. Information provided by the Leipold study (1964) should be of value to students in post-high school programs who intend to be employed in Wausau or similar communities. Leipold found that some distributive personnel in most businesses spend at least part of their time in planning, preparing, or scheduling advertising and that most of the distributive personnel who are concerned with advertising spend part of their time on other duties--most personnel responsible for advertising spend less than one-fourth of their time on advertising. Harms (1963), in the study referred to earlier, reached an interesting conclusion. She concluded that the programs offered by two-year retailing schools are excellent preparation for the field (preparing women to enter the retail clothing field) insofar as they go. These programs are not long enough, however, to be adequate training in

themselves. The average student is not mature enough after only two years of schooling and these retailing schools are not able to offer enough liberal arts in only a two-year program.

Lockley's study (1962), which was supported by the Ford Foundation, of 100 heads of small- and medium-sized businesses has implications for educational guidance. Retail and wholesale firms accounted for 22.1 per cent of the sample; the median number of employees was 26 to 100; one-third of the firms hired more than 100 employees; and 11 hired more than 500 workers. Seventy-three interviewees mentioned that they themselves would like to have had more knowledge of highly specific vocational information. The courses or areas most often mentioned specifically were those commonly offered in the traditional school of business curriculum. A high premium was placed on the qualities of good administrators and on personal qualities of vigor and morality. They thought that these qualities could be developed through experience or education such as formal management-development programs. They wanted the new college graduate to earn his salary when he is hired, not to become "ripe" a decade later. The only changes they would like in the curricula of the schools of business would be in the direction of making courses more vocational and more practical.

These findings are explicit in reflecting the desires of these business managers when employing young people and should be helpful in educational planning. Whether they are sufficient unto themselves in the matter of educational planning is debatable when other findings of the study are known. They were as follows: (1) business managers' thinking is concerned with the performance of the

normal routines of business; they rarely think about social questions or in terms of future problems; (2) they feel considerable pressure from competition and concentrate their thinking largely on their businesses; (3) their reading is largely for relaxation and entertainment and they are more likely to read magazines than to read books; (4) the business reading they do must give them technical business answers. They are not interested in theoretical discussion, even in the fields of their own businesses; (5) they think of a college education as a general good, which, increasingly, all people should have; (6) they seem to be entirely unaware of any discussion concerning the nature of business school curricula and unaware of any trends toward enrichment or change in the offerings of schools of business; (7) they do not, actually, regard themselves as needing any new points of view or of needing any intellectual re-activation; and (8) they are doing just what they want to do and about the way they want to do it, and most of them would plan no change in their ways of life if they were suddenly visited with riches.

Guidance Information about Collegiate
Education for Distributive Careers

The Lockley study described above could also easily be classified as information about collegiate education for careers in distribution, even though the outcomes desired by business managers appear to be more in line with commonly conceived aims of post-secondary programs. Clearly within the collegiate realm, however, are two studies which do not deal with federally-reimbursed programs directly but which strongly influenced the curriculums of the collegiate schools of business and indirectly affected distributive education. These studies

by Gordon and Howell (1959) and Pierson and others (1959) were appropriately summarized by Silk (1960). Among the recommendations for improving collegiate business schools were the following ones which have a bearing on public school distributive education: (1) admission requirements to the business school should be raised; (2) college and university business curricula must be pruned to reduce vocationalism and over-specialization; (3) at least 50 per cent of the undergraduate programs in business should consist of courses in the liberal arts; and (4) the focus of business studies should be upon "managerial decision-making" with emphasis upon the application of scientific knowledge to business problems.

The Value of Collegiate Education in Retailing

Hampton (1961) concluded that while collegiate retail training is generally acceptable, there is some doubt as to whether it gives the student a marketable skill that makes a retailing graduate a more desirable and valuable retail employee. As yet there is no proof that a student with aspirations for a retailing career can derive any special benefits by selecting a retail educational pattern over any other type of collegiate education. His study dealt with perceptions of retailers and retail educators in California state colleges. Retailers saw the worthiness of collegiate retail education as generating an interest in the field, whereas the collegiate faculty looked upon retailing as a part of the business curriculum and as a discipline of the field of marketing, the purpose of which was the teaching of management skills in the retailing area. The investigator concluded that retailers were generally quite ignorant about the type

and quality of retail education taught at the California state colleges; they generally believed the retailing faculty to be inexperienced in the field of retailing, which was contrary to the facts.

Courses Recommended for Career-Oriented College Students

Research to date on selection of college courses for people preparing for careers in distribution is largely confined to surveys of opinions of selected groups of "authorities." Many investigators seem to have lost sight of the fact that distribution is a very broad field and that there is great diversity in the nature and operating practices of the different kinds of distributive institutions--retailing, wholesaling, service businesses, and the distributive functions of manufacturing. Furthermore, within the area of retailing there are sharp differences in policies and practices--compare food supermarket operations with those of high-fashion millinery or a distributorship for farm implements. Thus, it appears to be dangerous to generalize a great deal concerning the findings of studies in this category and it would seem prudent to keep in mind the limitations of the respondents discussed earlier. Five studies will be reviewed, each representing a step in a progression from a specific kind of preparation to preparation for a broad field.

For women entering the retail clothing business, Harms (1963) reported that the dominant opinion of 75 leading retail store personnel executives was that the best educational background for a woman was a college degree in clothing and textiles and merchandising; also, that the current clothing and textile majors in the leading

colleges and universities appeared to offer the basic training advantages for a woman entering the retail clothing field but store managers tended to feel a need for more business courses and fewer home economics courses.

For men or women entering employment in New York Metropolitan Area retail organizations employing 1,000 or more workers, Gillespie (1959) found that only seven of 86 college courses were rated as essential by 30 senior executives in 10 business firms. They were human relations, human relations in retailing, human relations in business, speech, business English, English composition, and economics. Thirty-two specialized and 11 liberal arts courses were considered essential or desirable.

For women entering employment in department stores, Nesser (1961) found that the educational background preferred by a majority of respondents from 100 stores included education in business. She also found that participation in college activities was strongly preferred by department stores when considering applicants for the training program.

For men or women entering business firms as training directors, Griffith (1961) found that members of the Northern California Chapter of the American Society of Training Directors considered a college degree essential and that a training director must have extensive experience in the firm. They also indicated that he must have the skills of a teacher although he may not exercise these skills himself.

In regard to becoming a business or industrial manager in firms employing more than 75 persons, Johns (1962) found the following: (1) the individual most likely to succeed in management was a graduate from

the program of business administration whose undergraduate education included about 50 per cent of general education, high-indicated scholastic achievement and demonstrated leadership in social, professional, and civic organizations; (2) course of study content considered necessary by the management included, in order of rank, accounting, written communications, business finance, oral communications, mathematics, economics, personnel management, marketing, psychology, and industrial management; and (3) 85 per cent said scholastic achievement should be above average.

Dissemination of Occupational and Educational Information

Productivity in research on the dissemination of guidance information has been surprisingly low in light of the importance of this function in distributive education. No study that deals with this subject in its entirety was located. However, a number of investigations encompass dissemination responsibilities and practices.

Secondary School Information Dissemination Practices

Samson (1964) identified information dissemination duties of coordinators which included media for carrying out the activities and contained inferences for dissemination practices in his Category III, "Administration and Operation of Program." Mascari (1964) studied the recruitment and selection of students in secondary school distributive education programs in Illinois. He reported that the two almost universally used methods were personal interviews and application forms. He concluded that "recruitment" in distributive education should be a year-around process if the program is to be successful.

McAfee (1958) concentrated his research efforts on parents and the media for reaching that particular group. He found that Minnesota coordinators made greatest use of the school paper and the conference at school. Small community teacher-coordinators used the newspapers. Open houses were used extensively. Guest speakers and personal explanations of the program were frequently used. Ovsiew (1960) reported 30 effective distributive education practices in the area of promotion and publicity which dealt with the dissemination of various kinds of information about the program at secondary school and adult levels of instruction. As is so often the situation, the earliest study including this aspect of the guidance function was done by Emick (1936) during 1932-33. Sample section captions in his report are "Measures Taken to Counteract Adverse Attitude on Part of Pupils" and "Measures Taken to Counteract Adverse Attitude on Part of Parents."

Reed (1957) analyzed factors influencing enrollment in Iowa high school distributive education programs and reported the following findings which provide suggestions on the kind of information students want: (1) approximately 80 per cent of the students enrolled because they wanted the work experience offered; (2) 81 per cent indicated that persons who had been in the program were the most helpful sources of information; (3) a personal conference with the coordinator before enrolling in the program was indicated by 54.9 per cent of the students; (4) graduates of the distributive education program proved to be the best advertising for the program while other publicity media rated very low as sources of information; (5) 54 per cent of the students did not become interested in the program until the eleventh grade; and (6) many of the business education courses

were factors influencing students to enroll in the program. Students suggested the distributive education club as an effective type of publicity. Jones' findings (1957) concerning the value of graduates as disseminators of information supported that of Reed. He concluded that distributive education graduates were the most influential persons in students' decisions to apply for distributive education.

Post-Secondary and Collegiate
Information Dissemination
Practices

The post-secondary distributive education studies reviewed did not deal with information dissemination with the exception of a small portion of the Henkel study (1965) of graduates of Wisconsin Technical Institutes, who indicated need for more specific occupational information and a broader coverage of the distributive occupations. Factors influencing enrollment in the marketing program most frequently mentioned were employment opportunities, high school counseling, and recommendation of friends.

The Jefferson study (1963) offered information regarding the kind of occupational information which may be useful in guidance concerning variety store merchandising careers. The investigator reported that the factors influencing managers to enter retailing were the opportunity for employment, the type of work offered, friends, and relatives. Information from friends, relatives, and fathers is helpful in confirming the managers' choice of an occupation. Advantages of variety store management which were given included salary, prestige, retirement, security, and self-employment.

On the collegiate level, Hampton (1961) found that there was surprisingly little communication or contact between the retailer

in the field and the retailing educator in the college classroom. Harms (1963) reported that in the women's retail clothing business, an interview was the most widely used of all selection instruments and the college recommendation was second. Tests were used by a number of stores, but there did not appear to be any definite pattern as to the use of either a definite test or type of test. She also reported that initiative and enthusiasm appeared to be the most outstanding of all personal characteristics beneficial to a person in the retail clothing field. A suggestion as to appropriate subjects for recruitment came from the Johns study (1962) in which he reported that an increasing number of the members of management teams came from backgrounds where the father's occupation was in the agricultural, skilled, or semi-skilled category.

The most recent study bearing on occupational information was done by Buckner (1966). The study reported tangible information about retail executives' age, education, career patterns and job stability, attitude toward the field, attitude toward retailing as a profession, and appraisal of the competencies needed by their successors.

The Counseling Function

The counseling function of the distributive education teacher and teacher-coordinator have not been clearly defined. The small amount of inquiry that exists deals with the counseling role of the teacher-coordinator and is derived from two sources: (1) critical incidents as reported by student-trainees, supervising school administrators, faculty members and training-sponsors, and (2) from opinions of teacher-coordinators and guidance counselors. Thus, the

definitions of the coordinator's role in counseling comes from both inside and outside the profession.

The Counselor Function

Counseling is not a category for the classification of teacher-coordinator behaviors in the Samson study (1964); therefore, counseling tasks are not easily located. One must first formulate a definition of counseling and apply the criteria of the definition to the behaviors under various categories. For the purposes of this discussion, the term "counseling" will be limited to dealing with problems of individuals that concern matters of vocational, educational, and personal choice making. This excludes group counseling and dealing with social needs, which, for the sake of convenience, are treated as instruction in an earlier section. Even with this restricted definition, counseling behaviors are sometimes difficult to identify in some cases because the behavior does not sufficiently delimit the purpose of the activity; e.g., "conducts conferences with training-sponsors, parents, and others on student-learner behavior." Other counseling behaviors in the Samson list identified by the authors are: (1) counsels with students and provides individual help on problems connected with job, training-sponsors, or other related actions; (2) conducts individual conferences with students on their personal problems or behaviors (grooming, personality, attitude, etc.); (3) counsels with students on educational plans, encourages them to continue their education, and not to drop out; (4) assists in developing appropriate class schedule; (5) explains to students employers' rating sheets and the grading system, then counsels with students when employers' ratings have been made; (6) counsels with students who are inattentive or not doing well in distributive

education and other classes and tries to help them improve; (7) invites students to talk over problems and is willing to do so at any time; and (8) discusses with students their job problems and makes suggestions on how to handle situations or how to improve.

In the Helling study (1963), the status of selected counseling tasks in Minnesota was as follows: three-fourths or more of the responding coordinators and counselors agreed that these tasks should be performed by the coordinator: (1) counsels with an employer on the student's behalf when a problem on the job comes up, (2) assists students in solving their vocational problems pertinent to the distributive education program, (3) counsels and discusses with parents of cooperative class students about students' decisions or progress on the job, and (4) assists pupils in solving their personal problems pertinent to the cooperative program. The agreement on "counsel adults in the evening school program" and "counsel former cooperative students" was only mildly in favor of the coordinator. There was strong agreement that the counselor should be primarily responsible for "counseling and choosing of electives for cooperative students" and "counsel students as to the best utilization of their needs in relation to aptitudes and interests (will they profit from the experience?)." There was disagreement among the counselor and coordinators on two counseling tasks: (1) counsel students as to the decision to become cooperative enrollees, and (2) assist pupils in solving their educational problems pertinent to the cooperative program.

The Counseling Process

Interested distributive education researchers may be referred to a discussion of counselor models by Daane and McGreevy (1966) for clues to research in this important area.

The Placement Function

The placement function of the distributive education program includes services to several groups of students: (1) those who have been accepted for a cooperative education program, (2) secondary and post-secondary students who are not affiliated with cooperative education, and (3) distributive education graduates of the several programs. In each situation the objectives are quite different.

The Teacher-Coordinator's Role in Placement

Placement of cooperative students in training positions has traditionally been a duty of the teacher-coordinators; however, the responsibility for placement of high school and post-high school students not enrolled in the program and placement of graduates of the program is not as clear.

According to the Warmke study (1960), distributive education leaders reacted to placement responsibilities as follows: (1) 49 per cent of the respondents indicated that the advisory committee and coordinator working together should select the training stations for cooperative students; 35 per cent indicated that this should be done by the coordinators; and (2) 31 per cent indicated that the student placement activities of the distributive education coordinator should include only distributive education jobs for students enrolled in the

cooperative part-time program; 39 per cent indicated that he should be responsible only for distributive education jobs but for the total school placement program; 20 per cent indicated that he should be responsible for the total school placement program when possible. In contrast to the first item of the Warmke study above, Harris (1965) found that 77.1 per cent of the Illinois distributive education coordinators felt that training stations should be selected by the coordinator alone. In Minnesota, Helling (1963) found 100 per cent agreement between coordinators and counselors that placement of distributive education cooperative students on jobs was the coordinator's responsibility. Opinion as to the responsibility for placing students not in the distributive education program on jobs was almost evenly divided with 57 per cent of the total respondents assigning the duty to the counselor. Placement of seasonal part-time students not connected with the program was assigned to the counselor by a narrow but significant margin of 66 per cent of the entire group of respondents.

More specific placement tasks were reported by Samson (1964) as follows: (1) promptly reassigns students to different training stations when students lose jobs or when other circumstances indicate desirability of job change; (2) makes personal visits to businesses to secure their cooperation as potential training stations and obtains jobs for students; (3) provides suggestions on where students might find a job and refers them to possible training stations; (4) sets up interviews for students at training stations and allows students to decide which training station they will work for; and (5) provides employer with information on student employment and advises them of

the characteristics and abilities of students. An additional task taken from the Harris study (1965) is "secures the cooperation of understanding employers and training-sponsors to give students with known limitations effective training." Ineffective behaviors listed by Harris provide clues to proper practices: e.g., "places students in training stations where the training received is not consistent with the program or student career objectives," and "places students who are lazy, indifferent, or poorly adjusted in another training station."

Selection of Training Stations

The earliest study reported in this review, that of Emick (1936), contains one of the most interesting treatments of the selection of training stations. It lists cooperating store requirements and cooperative job requirements. It provides a list of standards for cooperative jobs--general standards, kinds of jobs for which credit is granted, and job and organization analysis. Ten pages are devoted to descriptions of training agreements and their use. Ovsiew (1960) listed a half-dozen effective practices in placement of students. Warmke (1960) found that 82 per cent of the distributive education leaders of 1959 believed that placement of cooperative part-time students in training stations could best be accomplished by the coordinator's selecting several suitable students to apply and final selection being left to the discretion of the business firm personnel. Miller (1959) found that businesses with less than 10 employees served as training agencies for 57 per cent of the distributive occupations student-trainees in Tennessee, and that department stores, food stores, and limited-price variety stores accounted for 63 per cent of the

trainees. In assessing the degree of fulfillment of purposes of training stations, Barton (1960) found that employment procedures for distributive education trainees in Ohio complied in most instances with the objectives established by the State Department of Education.

Kurtz (1966) explored the possibility of on-the-job training of high school students in manufacturing establishments in Ohio. He found no correlation between willingness to employ and train distributive education students and the size of the firm, the size of the sales force, or the type of product manufactured. He reported that the manufacturers studied had little or no knowledge of distributive education and did not relate it to marketing, that few of the manufacturers had any sales training program, and that most of them have a meager type of training within the company. Kurtz reported further that in hiring sales personnel, sales ability ranks first and that only 20 per cent of the manufacturers required a bachelor's degree of their sales personnel while 45 per cent listed high school graduation as their minimum educational level for employment. Kurtz concluded distributive education can become a vital source of employees for manufacturers in employment for sales and marketing positions.

Opportunities for Placement
Research in Cooperative
Education

Other than the identification of placement duties and responsibilities and the enumeration of a few placement practices, the entire area of placing cooperative part-time students is virtually barren of research. Yet placement is without doubt one of the most crucial

elements in cooperative education. Recently the works of Wallace (1962 and 1964) and Schadt (1965) appeared to signal an interest in measuring creative abilities but no research has been reported which puts the tests to use in placement of students.

Appropriate instruments are now available for use in measuring a student's vocational needs and for measuring his satisfaction with his job. Instruments for measuring an employer's satisfaction with an employee or student-worker are also available. (See references by Weiss and others, Dawis and others, and Scott and others.) Knowledge of these testing instruments may spur research in this field.

Placement of Graduates

Placement of graduates has recently become a topic of great interest to those persons who are involved in federally-reimbursed vocational programs because of a provision of the Vocational Education Act of 1963 calling for periodic evaluation. Several studies have been directed toward program evaluation, with placement as an important criterion of successful program operation. These studies will be described later in a section on Evaluation. No research dealing with the practices in placing graduates during the past 10 years was located. Even though this activity is inherent in the primary goal of vocational education, it is apparently overlooked or ignored by distributive education researchers.

The Follow-Up Function

For purposes of discussion in this section of the review, the term "follow-up" refers to a service for employed students if they are enrolled in cooperative programs or have graduated from a distributive

education program. It refers to services provided in making job adjustments and career decisions. In this sense, follow-up has characterized distributive education throughout its history. It is often referred to as "follow-up coordination."

The Need for Accompanying
Occupational Experience

In response to Warmke's question (1960), "Is classroom instruction, with no provision for business experience, adequate for a secondary school student who plans a career in a distributive occupation?", 55 per cent of the national leaders responded "seldom" and 37 per cent said "never." Illinois distributive education coordinators five years later responded to Harris (1965) in a similar manner; "seldom" was checked by 68.7 per cent and "never" was checked by 18.7 per cent. Corbman (1958) concluded that cooperative training was very helpful as a training technique for the post-high school retail distribution program of the New York Institute of Applied Arts and Sciences. Gradoni (1957) concluded that all New York trainees should obtain required work experience. Apparently the need for accompanying occupational experience is well established.

The Teacher-Coordinator's Role
in Follow-Up of Students

Distributive education leaders of 1959 polled by Warmke (1960) overwhelmingly indicated that the student's occupational experience must be coordinated by a teacher-coordinator or coordinator. Eighty per cent of them said that coordination in school systems with more than one cooperative distributive education program should be done by the person who teaches the student. In the Harris study (1965),

91.7 per cent of the teacher-coordinators agreed with this policy. In order to achieve the educational goals, nearly 60 per cent of the nation's leaders indicated that the teacher-coordinator should be employed 10 months per year and 35 per cent said on a year-around contract. Illinois coordinators responded to Harris's inquiry in a similar manner.

A considerable number of critical behaviors from the Samson study (1964) provide an insight into the nature of the teacher-coordinator's follow-up duties: (1) works with training stations to develop suitable work assignments, revises work schedule, and carries out special learning projects; (2) meets with employers or training-sponsors and discusses disagreements on hours and pay and the behavior and relationships of students and personnel at training stations; (3) regularly and frequently visits student on the job inquiring how they are getting along, providing suggestions on work, and showing interest in students' activities on the job; and (4) helps students get off work to attend school functions or other activities. Harris (1965) added activities of a similar nature--"explains to employers the possible reasons for the students' behaviors to aid them in making fair decisions," "secures the cooperation of training-station personnel to help students develop better employee-employer relations," and "holds conferences with employers prior to time students are actually discharged." As might be expected, Helling (1963) found no conflict of opinion between counselors and coordinators on the coordinator's responsibility for counseling students with regard to problems on the job. The same results were found in relation to the coordinator's counseling and discussing student's job progress and student's decisions with their parents and with employers.

On-the-Job Follow-Up Procedures
and Practices

Warmke (1960) obtained the opinions of distributive education leaders in the year 1959 on nine procedures and practices in follow-up activities. Seventy-five per cent of the respondents thought that the minimum number of hours a week that a student-trainee should work was 15; the maximum hours of work was not as definite with two-thirds of the respondents stating between 25 and 30 hours.

Responses to the Harris (1965) inquiry by Illinois coordinators were similar. In the Warmke study (1960), 55 per cent of the respondents indicated that the student-learner should be allowed to meet the minimum requirements of hours of business experience by working Saturdays and during school holidays and vacation periods (excluding summers) if the work was supervised by the coordinator. Ninety-two per cent of the same respondents indicated that cooperative part-time student-trainees should receive the prevailing wage for the type of work they did. To the question, "Is a designated job rotation schedule . . . necessary?," 61 per cent said "usually" and 29 per cent said "always." Forty-five per cent indicated that the coordinator should visit the student-trainee on the job once every two weeks; 24 per cent indicated once a week. Illinois coordinators responding to the Harris inquiry were inclined toward less frequent visits. Nearly two-thirds of the 1959 leaders of the field indicated that a student-trainee should seldom be allowed to work throughout the year at a job which requires a short learning period; 33 per cent said "never." Thirty-three per cent of the Illinois teacher-coordinators checked the answer to the same question as "usually," indicating a

rather sharp difference of opinion from that of the leaders. Judging from the results of the Warmke and Harris studies, it appears that the allocation of coordination time on the basis of one-half hour per student per week is the most prevalent opinion. Seventy-one per cent of the leaders indicated that one unit of academic credit should be given for one year of supervised occupational experience in a secondary school cooperative program.

The Training Station's Contribution

In the Jones study (1957) of Pennsylvania cooperative distributive education programs, merchants reported the following ways in which their businesses cooperated with local programs: (1) by always employing distributive education students, (2) by providing good supervisors, and (3) by providing progressive training and experiences. On the other hand, they reported limited job opportunities for advancement for graduating distributive education students. Of the nine positions listed, only that of salesman was indicated by more than 25 per cent of the merchants as being available to such students. Kraushar (1956) studied the skills, knowledges, and personal characteristics essential to success of cooperative student-trainees by enlisting the help of employers in deciding on items for rating sheets and job analysis check lists. The rating sheet was analyzed into four efficiency factors, 11 personality factors, and one physical factor. The check list consisted of 246 duties and requirements.

Evaluation of Cooperative Occupational Experience

In measuring the degree of fulfillment of objectives of Ohio's cooperating training stations, Barton (1960) found job assignment

procedures for distributive education students did not comply with objectives as established by the State Department of Education. Job rotation often did not take place. He also found the job instruction procedures rarely satisfy the objectives. Training programs are rarely developed. Coordinators do not have materials for related study. Miller (1959) found that among Tennessee trainees the most frequently mentioned good points of the program were learning to meet people and experience in salesmanship; the weak points were working too long and poor pay. In the Jones study (1957), all involved groups were satisfied with the distributive education program. Ninety per cent of the principals, coordinators, and students reported that they were satisfied; merchants, 72 per cent. In Minnesota, Bicanich (1964) found that students ranked co-workers, on-the-job supervisors, and on-the-job training very high. Almost 40 per cent said that they received more training and assistance on the job than other part-time workers. On-the-job training was rated 5.3 per cent higher than classroom instruction.

Opportunities for Research on
Follow-Up Students on
Their Jobs

Research on following up students on their jobs during the 1960's was of a very general nature. We know from the inquiries that including on-the-job training is a good educational practice and that present operations in this area of the coordinator's activities need improvement, as was indicated in several studies. The great need, however, is for specific information which will lead to knowledge of how to improve it. Studies which expose the many problems of student-trainees in achieving occupational adjustments are needed such as those of Lombard (1955), Rosenwinkel (1957), Johnson (1958), and Wiklund (1958).

FACILITIES AND EQUIPMENT

At present, there seems to be little research on distributive education facilities and equipment--a situation which should change with the current emphasis on the project method. No experimental studies were located. Like so many other aspects of distributive education, the explorations which have been made are confined to the collection of opinions.

The Need for Equipment

Some conception to earlier thinking about the use of model stores is shown in the answers to two questions asked distributive education leaders in the Warmke study (1960). Sixty-three per cent indicated that on-the-job business experience was all that was necessary for distributive education students; 33 per cent indicated both on-the-job experience and a model store in the school were necessary. Replies to the question, "Should the distributive education classroom have a model store unit?" were: 18 per cent answered "seldom," 51 per cent checked "usually," and 14 per cent checked "always." The need for equipment in Illinois secondary school programs was indicated by graduates in the Donaldson study (1958). Among the suggestions for improving the classroom phase of instruction, the following items relating to facilities and equipment were reported: first, provide adequate equipment; fourth, need larger classroom; sixth, have more display projects; ninth, secure actual merchandise with which to work; and 12th, install full-sized window for display practice. Johansen (1963) found that one of the major weaknesses of the Iowa

distributive education programs when evaluated in terms of the NSSSE evaluative criteria, 1960 edition, was lack of physical facilities. A recent survey of the opinions of Wisconsin technical institute graduates by Henkel (1965) showed that 75 per cent thought the physical facilities were good to excellent.

Characteristics of Equipment

Peart (1961) concluded that there may be differences in the basic function of the high school laboratory when compared with that of the junior college laboratory. The high school coordinators placed their major emphasis on those functions and activities in the laboratory which are related to the habits, skills, and information needed by the students in their store training stations. The junior college coordinators seemed to place greater emphasis on the functions of the laboratory to develop the individual interests and talents of the student irrespective of the requirement of individual training stations. He pointed out that the Washington, D.C., officials showed greater concern for the public relations and adult training aspects of the laboratory program than did the high school and junior college coordinators. An examination of the top fourth of the activities ranked by the three groups of observers revealed that the Washington, D.C., officials gave greater priority than the coordinators to such practices as inviting members of the advisory committee, employers, business people, and the public to various functions in the laboratory. Findings on the use of the laboratory for instructional purposes were described earlier. Jackson (1963) used the NSSSE evaluative criteria in evaluating 30 Tennessee high schools. His report showed the kind

and quantity of equipment used. He judged some schools to be adequately equipped while others were not.

School Stores

The use of the school store, where merchandise is actually bought and sold, was discussed in the section on the learning process and teaching methods. Yormark (1960) did the only study treating this subject that was reported during the past decade. He concluded that the coordinator must realize and be able to explain and defend the basic purpose of having the school store. This purpose should be one that considers the public relations with the faculty and the business community. This basic purpose should be one that is educationally sound. Of the many purposes reported in the literature and interviews, only one appeared to meet this criterion--that being where the store was considered as a tool of instruction in the teaching of distributive education.

TEACHER EDUCATION

Distributive teacher education prior to World War II was performed almost entirely on an in-service basis through workshops, summer-session courses, supervisory conferences, and on-the-job supervisory visits. Following the war, a number of colleges and universities installed pre-service distributive teacher education programs headed by practitioners who built curriculums based on their own educational and occupational experience with advice from their colleagues and state supervisory personnel. Distributive teacher education seems to be emerging from a pioneering stage with little research in this

realm to date. It appears that a new phase of development is at hand--one in which research will play a much more important role.

So that unity may be given to a truncated sequence of investigations, the following discussion will treat a mixture of studies and events. A logical sequence of topics seems to be (1) the role of teacher education and teacher educators, (2) pre-service teacher education curriculums, (3) in-service teacher education, and (4) evaluation of distributive teacher education.

The Role of Teacher Education and Teacher Educators

The role of teacher education and teacher-education responsibilities of various distributive educators has been a dynamic one and probably will continue to exhibit this characteristic. It has been one in which formal specialized preparation for distributive education positions has become increasingly recognized as being important and necessary. Presently, the teacher-education function is performed by many kinds of educators: teacher educators, state and local supervisors, vocational directors, school administrators, and teacher-coordinators. Role clarification is greatly needed.

Early Studies and Conference Reports

In the report of the Emick study (1936), Chapter XIII, entitled, "The Teaching Personnel," is worth reading today from the standpoint of developing an understanding of the background of distributive teacher-education problems of 1932-33. Some of the problems related are still with us. Another document, one which cannot be classified as a research report but which has more to offer than its historical

value, is the report of the First National Training Conference for Distributive Education called by the U.S. Office of Education (1939) held at Dunwoody Industrial Institute, Minneapolis, Minnesota, August 14-25, 1939. This report contains the role of teacher education as conceived by the conference members who were selected for the task.

During the war period, what little institutional teacher education that had existed was recessed in many institutions. Teacher "training" took a new direction in that packaged courses were introduced. These "cookbook" type courses in Job Instruction Training and Human Relations Training were prepared under the auspices of the U.S. Office of Education. State supervisors and teacher educators were trained in their use by regional representatives of U.S. Office of Education, who in turn trained adult education instructors in their states to teach the courses to supervisory personnel in business establishments.

After the war, it was necessary to retool and continue where teacher education left off in 1942. A National Workshop Conference on Distributive Education was held in May of 1948 under the direction of the U.S. Office of Education. The report of the 1948 National Committee on Teacher Training (1949) is another document of value in tracing the development of distributive teacher education.

Early doctoral studies relating to cooperative program organization and administration, such as the Banks study (1943) and the Runge study (1953), and to the duties and responsibilities of a teacher-coordinator, such as the Keeling study (1946) and the Cassady study (1950), contributed to the development of curriculum content. This was particularly true of the Runge study which furnished information for a teacher-education textbook.

Teacher Education During the 1950's

The Willis study (1954) was the first to be devoted entirely to "teacher training." Willis gathered information from numerous sources to ascertain the status of distributive teacher education and subjected her findings to a jury of experts. She reported (1) great variation in certification requirements for distributive education teacher-coordinators, (2) great variation in the teacher education curricula, (3) some variation between existing certification requirements and those recommended by the jury, (4) great variation between courses listed as required for certification and those offered at teacher-education institutions, and (5) little variation between courses listed in certification requirements and those recommended by the jury.

The Warmke study (1960) of distributive education issues in 1959 was of considerable value to teacher education from two viewpoints. It provided the opinions of leaders in the field on certification requirements and qualifications and it increased teacher educators' confidence in the practices and procedures which they were teaching.

During the last year of the decade, the U.S. Office of Education published a bulletin entitled, The Role of Teacher Education in Distributive Education (1959). This was the first bulletin devoted to the total distributive education program, although two earlier bulletins had dealt with the adult phase of the program.

Studies and Reports Since 1960

Marks and Beaumont (1962) prepared a report on the first (and last) conference of national leaders in distributive teacher

education in Chicago, June, 1961. This report on the U.S. Office of Education-sponsored conference is the most comprehensive publication on distributive teacher education to date. It covers the role of teacher education and that of the teacher educator as follows:

(1) objectives and philosophy of teacher education, (2) developing distributive education, (3) the curriculum in teacher education, and (4) advanced professional programs.

The Council for Distributive Teacher Education was organized and its constitution adopted at the annual meeting of the American Vocational Association in December, 1961. Each year since its inception, it has published two professional bulletins. Two of these bulletins deal with special aspects of the role of the teacher educator. Carter (1963) was the author of the third bulletin issued, which dealt with the role of the distributive teacher educator in adult education. Scannell (1963) was the author of the fourth bulletin, which described the off-campus responsibilities of teacher educators.

At the 1962 Central Regional Conference of State Supervisors and Teacher Educators, a formal request was made to the U.S. Office of Education for a meeting of teacher educators. The U.S. Office of Education (1962) sponsored the meeting which was held at the State College of Iowa in October, 1962. The report of this meeting (again the only one of its kind) deals with the distributive teacher education curriculum, research, evaluation of teacher education, and in-service teacher education.

The last national meeting of distributive educators under the auspices of the U.S. Office of Education was the National Clinic on

Distributive Education in October, 1963. This clinic did not focus on teacher education as such; consequently no report on teacher education is included.

Pre-Service Teacher Education Curriculums

Although some interesting research is currently under way that promises valuable information for the development of distributive teacher-education curriculums, teacher educators have had to depend on other areas of research for support in curriculum building. The materials currently available may be divided into four categories: (1) desired behaviors of distributive occupations personnel, (2) desired behaviors of teacher-coordinators, (3) teacher education curriculum related studies, and (4) studies concerning the occupational experience of teachers.

Desired Behaviors of Distributive Occupations Personnel

In the absence of research information specifically designed for distributive teacher education, teacher educators look to studies which give clues to content materials for their students, studies which reveal the traits, skills, attitudes, and abilities believed appropriate for success in distribution. Thus, reports of studies such as the following prove valuable: Binford (1957), Buckner (1966), Clark and Sloan (1962), Harms (1963), Jefferson (1963), Johns (1962), Lockley (1962), and Silk (1960).

Desired Behaviors of Teacher- Coordinators

Studies relating to the role and characteristics of teacher-coordinators and other distributive education personnel are very helpful in arriving at course objectives for professional education courses. Some of these studies are: Samson (1964), Warmke (1960), Harris (1965), Baggett (1965), Conley (1965), Hibner (1959), Lloyd (1965), Rountree (1965), and Tippet (1966).

Teacher-Education Curriculum Inquiries

Many questions about the distributive teacher-education curriculum have been posed but few attempts have been made to arrive at verified answers. Knouse (1962), in the first professional bulletin for the Council for Distributive Teacher Education, received 29 responses from 32 teacher educators concerning four areas of interest.

The five aspects of teacher education needing most attention at that time were: (1) more emphasis on experience in coordination activities in practice-teaching programs, including greater opportunity to work directly with merchants; (2) more emphasis on all aspects of adult education; (3) more emphasis on occupational experience with greater attention being given to college industry-arranged internship experience; (4) more technical distributive education course offerings, and (5) more attention to the development and use of criteria for the selection of prospective distributive education teacher-coordinators. Thus, the first four of the five related to the curriculum.

There was a wide range of suggestions offered under the heading "Emerging Considerations for Teacher Educators"; most of these related to curriculum and instruction. The 29 suggestions grouped according

to frequency are as follows: (1) club training--four, (2) content suggestions--four, (3) training for post-high school positions--three, (4) providing occupational experience for future teachers--three, (5) conducting and training for research--three, (6) developing measuring instruments--two, (7) preparing students for teaching in the pre-employment program--one, (8) preparing students for adult education responsibilities--one, and (9) preparing teacher-education textbooks--one.

Suggestions on operational considerations were as follows:

(1) better recruitment and guidance--two, (2) better cooperation with other departments--vocational and general education--two, (3) area cooperation in teacher education--one, and (4) dealing with accreditation requirements--one.

Reports on recent improvements in teacher education were culminated by matters pertaining to curriculums. Reports on planned improvements covered a variety of fields.

From a historical point of view, the Emick study (1936) provides some interesting information. Detailed information is given about the professional preparation of teachers and administrators who attended professional schools and about those who did not follow this pattern of preparation. The Willis study (1954), referred to earlier, also provides information about the curriculum of historical value. The recommendations of the jury of experts on curriculum provide food for thought today.

Haines (1964) studied the differences between the preparation needed by high school teachers of distributive subjects and teacher-coordinators in distributive education to teach the elements of

subject matter in the classroom. This was done by using a questionnaire and a check list of subject-matter elements to be rated by schools offering distributive teacher education. Almost every respondent supported the notion that there should be no fundamental difference in the mastery of content in marketing between the two groups. A few teacher educators felt that depth of content was more essential to the teacher-coordinator because of his intimate contacts with distributive businessmen and because of his role as a teacher of adult classes for employees, supervisors, and managers. This concern for depth is supported by the fact that for many topics in the outline a few more "votes" were recorded for "must-know" for coordinators rather than "desirable-to-know." A number of respondents felt that requirements in technical content could be tempered if the candidates' occupational-experience record showed extensive opportunities to acquire depth in marketing. Teacher-coordinators felt that some courses--particularly in accounting and finance--are not of first priority for distributive teachers and coordinators. The study showed that teacher educators believed that the series of marketing courses taught in most colleges and universities did not provide all the content deemed essential for the teacher of distribution; therefore, the teacher-education curriculum must draw on non-business departments for such subjects as textiles, color and design, and display.

Meisner (1966) found that no causal relationship existed between the amount of teacher preparation in economics by distributive teachers and the level of economic understanding achieved by their students as measured by the Test of Economic Understanding - Form B in the population which he studied. This comparison was between six teachers with

the most preparation in economics and their 75 students and six teachers with least preparation in economics and the same number of students. Because neither the teachers nor the students in this study were a random sample of the population from which they were drawn, the findings are only applicable to those involved in the study.

The Hampton study (1961) dealing with the collegiate education for retailing has implications for distributive teacher education, even though the reported attitudes of retailers toward the collegiate program is not as positive as might be hoped. Hampton concluded that even though in practice retailers did not necessarily give preference in hiring to persons with a business or retailing background, the "ideal" recommended college curricula for people planning on a retailing career was a combination business and retailing major.

No comprehensive or intensive research on the distributive teacher-education curriculum has been completed recently. However, Crawford (1964) reviewed the literature on the competency approach to curriculum construction or revision for distributive teacher education and a funded study is under way which will provide the basic information for curriculum investigations.

Inquiries Concerning Occupational
Experience for Distributive
Educators

Ferguson (1964) used a questionnaire to survey the practices for college distributive education and retailing occupational-experience programs. The questionnaire was sent to 102 institutions listed by the U.S. Office of Education, the American Collegiate Retailing Association, and a selection of schools listed in the roster of the

National Association of Business Teacher Education. Findings were reported for the entire group of institutions and for those offering distributive teacher education. The data were organized under four major categories: (1) the format of the occupational-experience program, (2) the coordination of the occupational-experience programs, (3) the supervisor's opinions about occupational experience and the regulations in his state regarding occupational experience, and (4) an attempt to determine the availability of persons who had been exposed to occupational-experience programs.

Sheehan (1964) used the questionnaire to gather basic information from 91 teacher-education institutions concerning work experience for future business teachers. Five representatives questioning its value were interviewed in depth. Eighty-five per cent of the respondents believed philosophically in the value of work-experience programs for future business teachers. Twenty-nine per cent of the institutions had an existing store work-experience program and 30 per cent had an existing office work-experience program with college credit.

During the summer of 1966, 30 selected distributive education teachers and teacher-coordinators from Upper Midwest high schools, area technical schools, and junior colleges participated in phase one of a pilot training program involving occupational experience. This project, directed by Meyer (1966), enlisted the cooperation of distributive businesses in the Twin City Area and the assistance of faculty members from the University of Minnesota Industrial Relations Center and Occupational Guidance unit of the counselor education program.

In-Service Teacher Education Studies and Reports

Both Council for Distributive Teacher Education professional bulletins of 1963 deal with aspects of in-service teacher education. Scannel (1963) investigated off-campus responsibilities of distributive teacher educators receiving a 94.12 per cent return from 34 questionnaires. He found that off-campus activities accounted for 27 per cent of the teacher educator's time and off-campus administrative duties another 18.2 per cent. Data was also gathered on the number of credit hours taught, variation of teaching loads, and faculty credit-hour loads, all of which have a relationship to problems concerning off-campus activities. Highlights of his findings relating to professional off-campus activities are as follows: (1) the largest single group (43.5 per cent) tried to schedule one day a week for this kind of activity, 13 per cent usually spent two days a week in the field, and 21.7 per cent allowed three days a week of off-campus functions; (2) more than half of the respondents offered professional courses for credit off-campus; (3) over 90 per cent scheduled individual visitations to their coordinators; (4) in-service education was conducted by 91.3 per cent; (5) local schools were visited by 95.6 per cent; (6) nearly 74 per cent had responsibility for off-campus student-teachers in distributive education; (7) nearly 70 per cent participated in checking the effectiveness of their high school programs; (8) slightly more than half of the teacher educators participated in planned periodic evaluation; and (9) nearly all of them (95.6 per cent) were involved with coordinators' conferences.

Carter (1963) gathered data on the role of the distributive teacher educator in adult education. He contacted 25 institutions

in 23 states by letter and received a list of functions performed by the teacher educator during the previous two years. From this information, he formulated a questionnaire and received returns from 22 institutions in 20 states. His findings are too numerous to report. Categories of his findings are: (1) organizational patterns, (2) services performed for business organizations or groups, including courses presented, (3) services performed for teachers and local school systems, (4) services performed for both business and school organizations, and (5) professional affiliations, organizations, research, comments, and suggestions.

Evaluation of Distributive Teacher Education

Only two studies dealing with the evaluation of distributive teacher education during the past decade were located for review. A third study of a related nature is an inventory of needs of teacher education institutions. The most comprehensive study, by Willis (1954), covered all existing teacher education programs at the time of the study. It involved the collection of a large amount of data, the formulation of a check list, and an evaluation of it by a jury of experts. The important findings of this study were described earlier in this section under the caption, "Teacher Education During the 1950's."

Cheshire (1964) did a follow-up study on 1956-63 graduates of Virginia Polytechnic Institute, receiving 100 responses to 101 questionnaires. He collected data on the location of residences, marital status, expression of a need for additional education, and number continuing their education, positions in which they were

employed, number remaining on their first job, number who took their first job as teacher-coordinators, starting salaries, average annual salaries, and number serving in the armed forces. A very high percentage of the graduates indicated that they profited from their student-teaching. The off-campus experiences were rated high in all areas of evaluation.

The study referred to above as being a related kind of study is the Knouse study (1962), the findings of which were described in considerable detail in this section under the caption, "Teacher Education Curriculum Inquiries."

ADMINISTRATION AND SUPERVISION

The number of studies reviewed that were classified as Administration and Supervision was surprisingly small. Only eight studies dealt in whole or in part with administrative problems--six of them pertaining to local programs and two to state programs. For discussion purposes, the reports of these studies are divided into two groups: those dealing with state-level problems and those at the local level.

One reason for the small number of studies reported in this section of the review is that research activities relating to evaluation of state and local programs are reported in the next chapter. Perhaps the most important reason, however, for this apparent near-dearth lies in the fact that very few of the research activities performed by state supervisors and their staffs breaks into print.

State and area supervisors and some teacher educators, particularly those who travel the state, almost incessantly gather information about local operations which is used in making decisions and in forming recommendations to local school administrations and teaching

personnel, to their state directors and boards of education, and to the U.S. Office of Education. Data is gathered periodically for a variety of committees of the National Association of State Supervisors of Distributive Education (NASSDE), an affiliate of the American Vocational Association, and to the parent organization. For example, appended to the minutes of the December, 1965, meeting of NASSDE were the following reports: (1) responses to a questionnaire on public relations, (2) responses to a questionnaire on research and development, and (3) responses to a questionnaire on guidance and counseling goals. Unfortunately, the information and data contained in reports such as these are seldom reported formally and distributed beyond the membership of the organization. Thus, false impressions arise regarding the research activities at this level of program operation.

State Administration and Supervision

Shipka (1957) conducted a survey to determine the functions of the state supervisors of distributive education and the services provided to schools. He sought information about size of staff, number of schools served, nature of the services offered, and similar information so that realistic recommendations might be made regarding the distributive education staff to the Minnesota State Board of Education. Fifty-one questionnaires were mailed to state departments of education and 46 were answered. More than half of the state supervisors reported that they were responsible for supervision of the teacher-education program. Ninety-one per cent of them were responsible for recommendations for certification of teacher-coordinators. Twelve of the

respondents were also acting as teacher educators and many commented that state supervisors should not have this responsibility. Twenty-two states reported that they had advisory committees. Teacher procurement and placement was an activity performed by two-thirds of the responding state supervisors.

The second study classified in this category was done by Canada (1966) who studied the relationship of distributive education in Colorado to state-plan requirements. It was not possible to review a summary of the findings in time for this review.

Local Administration and Supervision

Studies dealing with local administration and supervision of distributive education are entirely descriptive. They are based almost completely on the opinions of practitioners. They seem to fall logically into three groups: (1) General Practices, (2) Advisory Committees, and (3) Public Relations.

General Practices

Ovsiew (1960) directed a study of distributive education practices in a number of large city school systems. He employed three distributive educators and two marketing professors to conduct depth interviews in the cities visited. A large percentage of the practices reported may be classified as administrative and supervisory under such headings as the following: Administration, Adult Program, Advisory Committee, Coordinators, Curriculum Committee, Directors, DE Clubs, DE Week, and so on. The contribution of the report lies largely in the innovative practices described. Another source of information on administration and supervision of distributive

education is the Warmke study (1960) which provides the opinions of national leaders on a wide variety of practices. A comprehensive report on opinions regarding certification criteria and standards is included in the study.

Two master's degree studies involved the construction of manuals or handbooks on distributive education. Allen (1959) gathered information and data for a handbook for Iowa coordinators of distributive education. Bolton (1960) studied some of the factors involved in planning and coordinating a distributive education program with emphasis on Longview (Texas) Negro High School. Flis (1962) developed a manual for initiating and operating secondary school cooperative part-time programs. This manual included procedures for a principal, a coordinator, and a counselor. The practices and procedures were based on experiences with the program in Minnesota.

Advisory Committees

Powell (1965) devoted an entire master's study to an evaluation of advisory committees of the distributive education programs of Kansas. Ten practices reported in the Ovsiew study (1960) pertain to activities of to the local advisory committee. Warmke (1960) devoted a large section of his report to opinions of distributive education leaders relating to the composition and use of advisory committees in distributive education.

Public Relations

McAfee (1958) surveyed coordinators in Minnesota to identify the public relations media considered valuable in getting the cooperation of parents. He compiled a list of techniques used and constructed a

manual on parent relations for the use of distributive education coordinators. The school paper ranked first in use among the media. Other media used included conferences at the school, newspapers, and open-house programs.

EVALUATION

Evaluation has been one of the more popular types of research conducted by graduate students and other researchers since the beginning of distributive education. Assessments have been made of drop-outs as well as graduates. Processes and methods used in teaching and outcomes of various programs have been measured. Many devices have been employed to determine the quality of the program; however, the most widely used has been the questionnaire sent to students.

Evaluative Criteria for Distributive Education

Logan (1952) developed criteria for evaluating a state-wide in-school distributive education program. A series of panels of experts assisted in the determination of a list of standards governing the operation of a program in a state and in a community. A list of observable criteria was prepared for each standard. An instrument was then prepared for use by a committee in evaluating both a local and state program. The instrument was tried out in Springfield, Ohio, and in the Ohio State Department of Education.

Johansen (1963) developed a set of evaluative criteria to measure the effectiveness of 30 Iowa distributive education programs. In constructing the instrument, 56 check list statements were used with the guiding principles developed by the National Study of Secondary School

Evaluation. Specific criteria were developed for each of the checklist statements. Data were obtained by visitation to each of the high schools.

Follow-Up Placement Studies

Six follow-up studies have been summarized from the numerous follow-up studies conducted since the inception of distributive education. The wide variation in the types of information sought is noteworthy. Lack of uniformity in the structure of the questionnaires resulted in the inability of the authors to compare findings properly. The following discussion will reveal some of the problems involved in a comparison of findings.

Haines (1965) made a study of high school cooperative trainees to determine how they fare in the labor market. The study is a continuing project which began in 1961. Questionnaires were sent to 4,036 Michigan high school graduates in April, 1964, 10 months following their graduation. There was a 36 per cent return of the questionnaires. Major findings were that the unemployment rate was low; 38 per cent were attending college or some type of post-high institution; 43 per cent were not in the labor market (38 per cent were in school and five per cent were housewives); 35 per cent of the distributive trainees were working in a distributive occupation; and cooperative trainees were better-than-average students academically.

On the basis of the findings, one can conclude that cooperative vocational education contributes to helping young people secure employment and does not prevent them from furthering their education. Employers benefit because many trainees remain with their cooperative employer full-time after graduation.

Miller (1959) surveyed 401 distributive education trainees in Tennessee High Schools, 1949-50. The three largest cities in Tennessee accounted for 38 per cent of the trainees. Three-fourths of the trainees did not expect to attend college. Most frequently mentioned good points of distributive education were "learning to meet people" and "experience in salesmanship."

Hecht (1963) conducted a follow-up study of high school graduates of three New York State high schools to determine why they had selected distributive education, whether a substantial number remained in the field, and what their evaluation of the program was after obtaining store experience. Six hundred and fifty questionnaires were sent and 213 replies were received. Forty-six per cent of the respondents said that the training helped them advance more rapidly in their careers. They felt that they knew more than other part-time workers. They said that they chose distributive education for vocational reasons and because the field offered advancement and opportunities. They indicated that the chance to earn both graduation credits and money stimulated them to enroll. Only 13 per cent remained in the field one to three years following graduation. Fifty per cent left the field within six months because of inadequate salaries and long hours. The five units checked most often as those which could be learned better in the classroom than on the job were: public relations, contacting customers for outside selling, personality development, how to buy merchandise for resale, and how to get along with others. The fields most graduates entered upon leaving retailing were: homemaking, wholesaling, self-employment, and manufacturing.

Zancanella (1965) conducted an exploratory study of the effect of the secondary cooperative distributive education program on selected employment factors. He sought to determine whether or not there were important differences in selected criteria between distributive occupations employees who had participated as distributive education students and distributive occupations employees who did not participate in such a program during their high school attendance. No significant differences were found in types of employment firms, titles of position, main job function performed, job-performance ratings, reasons for changing employment, and salary. Significant difference did exist in intentions to remain in their present type of work.

Ely (1964) conducted a follow-up survey of 2,903 DE students in Virginia who graduated between 1957 and 1961. The purpose of the survey was to assist in evaluating the effectiveness of the distributive education high school program in terms of job stability of former students, numbers of graduates who continue their education beyond high school, and the impact of the program in later years on graduates. A total of 66 per cent were in the labor force. Of this number, 84 per cent were working full-time and 16 per cent were working part-time. Sixty-one per cent were still employed in distribution. More than one-third were still employed in the same business establishment in which they received their training. Thirty-three per cent had left the field of distribution for other employment. The percentage of employment in the retailing field showed a decrease, while permanent employment in service and wholesale establishments increased. More than 30 per cent of distributive education graduates in Virginia continued their

education beyond high school. More than 10 per cent were attending school and working part-time. Sixty-eight per cent of the distributive education graduates were cognizant of benefits which they received from the program. Three-fourths of the graduates recalled their distributive education work-experience with pleasure. Sixty-five per cent recalled classroom instruction pleasantly and almost half cited the personal help of the distributive education coordinator.

Donaldson (1958) measured the effectiveness of the federally-reimbursed part-time cooperative distributive education program in public secondary schools in Illinois. Questionnaires were sent to 833 persons in Illinois, including graduates of the program, school administrators, guidance personnel, employers of cooperative students, parents, distributive education coordinators, business teachers, chambers of commerce officials, and non-business education teachers. The sample included about 50 per cent of the cooperative distributive education programs in Illinois (outside Chicago).

Parents' opinions were favorable. All segments of the sample stressed the importance of the expert guidance and selection in helping students to decide for or against entering the program. A great many of the weaknesses of the program were attributed to the presence of students in it who were not interested or suited for employment in retailing.

Shotwell and Bikkie (1962) also made a state-wide follow-up study. They conducted an independent study of graduates of Kansas high school cooperative program graduates for the school years ending 1955, 1958, and 1961.

Four "follow-up of graduates" master's degree studies of local community scope will be mentioned for the benefit of those interested in this kind of evaluation. They are as follows: Elias (1962) who followed up the graduates of Burlington (Iowa) High School, Hancock (1960) who studied Edmonds High School graduates (Sumpter, South Carolina) during the years 1948 through 1957, Outwin (1960) who conducted a similar study of Bemidji (Minnesota) High School graduates for the years 1947 through 1954, and Zenk (1958) who studied the graduates of Zanesville (Ohio) High School.

General Follow-Up Studies

Corbman (1958) evaluated the retail distribution curriculum of a technical institute in New York City through a follow-up study of graduates during its experimental period of April, 1947, to August, 1953. A questionnaire was prepared which inquired about the frequency with which the graduates engaged in retailing activities related to material taught in the curriculum. With noted few exceptions, those competencies, information, and attitudes pertaining to the aims and objectives of the retailing subjects in the curriculum were sufficiently necessary and useful in the performance of the graduates' retailing duties and responsibilities to warrant retention of that training in the curriculum. Cooperative training was very helpful as a training technique.

Pierce (1959) conducted a follow-up study of the graduates of Kansas State Teachers College who majored in business and business education from 1918 to 1958. Questionnaires were mailed to 1,067 graduates--753 replies were received. A questionnaire was sent to the 89 graduates of sales and insurance curriculums--a total of 58

replies were received. The respondents were asked to indicate the courses which had proved to be most valuable to them.

Dorn (1961) conducted a follow-up study of 3,325 graduates of 37 high school distributive education programs in South Carolina between 1950 and 1960. Forty-five per cent responded. Almost all respondents stated that they had elected distributive education on their own volition. Excellent or adequate ratings were given on classroom instruction, on-the-job training, counseling by the distributive education teacher, and classroom discussion of job problems and demonstrations. The most important instructional units, according to the respondents, were school and store relationships and retail merchandising. Aspects of the program rated least satisfactory were: instructional activities, talks by businessmen, instructional materials, trade magazines, instructional units, legal aspects of business, and accounting and control. More than one-third of the respondents had at least one year of post-high school training and a substantial number had earned an academic degree. Almost half were employed in a distributive occupation.

A comparison of findings with those of Crawford, Zenk, and Donaldson gave an interesting twist to this follow-up study. For example, Donaldson had found talks by businessmen rated highly as an instructional activity although Dorn did not. Dorn's findings were in agreement with others that selection, guidance, job placement, and promotion of the program needed improvement.

Mock (1965) conducted an evaluation of the federally-reimbursable part-time cooperative distributive education programs in public secondary schools of Arkansas.

Evaluative studies of programs within an area were done by Murray (1957) on the Knoxville and Knox County (Tennessee) high schools, by Moore (1958) on the White County (Illinois) high schools, by Sommers (1958) on the Peoria and Springfield (Illinois) high schools, and by Seibel (1961) on the secondary schools of the suburbs of Chicago.

Local distributive education program evaluations were made by Wilson (1958) on the Marshalltown (Iowa) High School program and by Merritt (1964) on the Durham (North Carolina) High School program.

Evaluation of Process and Method

The development of curriculum in distributive education has come primarily from teachers of distributive education, state courses of study, textbooks, and teacher educators in a small number of states. Samson (1964) stated that broad, comprehensive studies of needs in total curriculum for preparing distributive workers at the secondary level had not been conducted. He further stated that the dearth of studies made the soundness of some areas suspect.

Rose (1963) made a study of the need for revision in the course content of distributive education programs as a result of the progress of automation in retailing. Though retailing was behind other segments of business and industry in automation, it was growing at a rapid pace. Rose found that automation in retailing affected a number of store functions such as management and stock control, purchasing, and credit. Little attention was being given to automation in high school or junior college programs. Supervisors and teacher educators had little background in automation. He recommended that distributive education

coordinators should receive training in automation and data processing.

Martin (1962) analyzed the retail store salesmanship content of selected distributive education textbooks to determine the basic essentials that should be included. There was substantial agreement between the textbook authors and the experts of other research in regard to essentiality. There was limited agreement between textbook authors and the parent-customers in regard to acceptability. Textbook authors favored a management viewpoint, whereas parent-customers favored a consumer viewpoint.

Peart (1961) analyzed objectives and practices in distributive education laboratories in high schools and junior colleges of the United States. He found that activities in the high school laboratories were coordinated more closely with the requirements of the students' store work-training stations than were those in the junior college. He observed that officials in the U.S. Office of Education showed more concern for those functions in the laboratory that are related to public relations and adult training than do the high school or junior college coordinators. He concluded that the distributive education laboratory supplements students' store work experiences as an instructional device for providing the training necessary for the distributive occupations.

Ashmun (1961) studied the use of business games in DE. He found that business games are useful as an aid in assisting students in getting an understanding of complex functional business relationships as well as a better understanding of the mathematical relationships in a business operation. He stated that games should not be an end

in themselves. When a game is devised to represent a specific business, it should be played first by persons employed.

Harris (1959) evaluated course content and textbooks in distributive education. Thirty-nine textbooks were used by the 142 respondents. One-third suggested more illustrations. There was a considerable difference of opinion as to what should be taught in pre-employment; however, there was much better agreement as to the units of instruction for cooperative DE classes.

Duxstad (1963) reported that trade magazines were used on a casual basis. Ninety per cent of the respondents reported that they leaf through the magazines and read appealing articles. Ninety-five per cent clipped articles for further reference. A variety of learning activities are used in conjunction with magazine articles. There was a consistency of opinion about the most useful magazines. Timeliness was the most important criterion in selecting articles to be clipped. Files were not accessible to students in approximately half of the classrooms.

Smith (1962) evaluated work experience in distributive education in the northern 21 counties of Illinois. Thirty-nine per cent of the respondents worked in stores having 10 employees or less. Eighty per cent were supervised by someone with more responsibility than a regular employee. Selling and stock work were the types of work performed most frequently. Thirty-six per cent felt they did not receive enough training for the job. Parents were satisfied with the program and most students were glad to be in it. Coordinators, supervisors, and students tended to agree that work experience is a necessary part of the program.

Shupe (1962) evaluated the worth and value of cooperative education from the viewpoint of high school teachers. The study can be replicated in other schools. The teachers in the high school surveyed felt strongly that the cooperative program is a vital part of the total school program and should be available to more students. There is evidently a problem of study time for students enrolled in the co-op program. Also, there is a need for a more careful selection of students.

Kohns (1963) found that the attitude of post-high school students in a class in show-card writing toward teaching machines was quite favorable. As the result of a report that 85 per cent of coordinators teach advertising, Olson (1957) produced a visual-aid for use in teaching the psychology of advertising.

Schadt (1965) found that Kenosha (Wisconsin) Technical Institute marketing students scored highest in creativity among four departments of post-secondary business administration, as measured by abbreviated Form VII of the Minnesota Tests of Creative Thinking. Data-processing students were second, accounting third, and secretarial science fourth.

Kintz (1965) did an evaluation of project approach distributive education classes with the use of questionnaires sent to 218 distributive education coordinators in schools where project-approach programs were in operation. He found that 22 of 27 units listed in his questionnaire were taught in 80 per cent of the classes and that the method of teaching was "strictly academic." He concluded that of the subjects that were not presented in classes, some were covered in other classes or they were not a part of a distributive occupation.

He also concluded that coordinators are not using the project-approach to its fullest extent in teaching.

Evaluation of Outcome:

The producer must know the value of the end product; otherwise he will never know how or where or when to make improvements. Distributive educators have been seeking to find a more effective way to learn about the end product.

Mason (1961) analyzed the content of related instruction for cooperative part-time programs in distributive education in Illinois. He sought to determine whether or not the content and structure of related instruction reach beyond preparation and success in the entry job. He found that growth and advancement on the job as the result of the training was not pronounced when comparing the distributive education graduates and the non-distributive education graduates. Employer opinion, however, gave stronger indication of growth and advancement of the graduates of the program when compared to those who were not. Distributive education graduates were relatively more in the top management bracket than the non-distributive education graduates. Indications were that the graduates were prepared for advancement positions rather than entry positions. There was not a precise fit between what business wants from the training and what teacher-coordinators do in providing the training.

Barton (1960) sought to determine the degree of fulfillment of objectives in Ohio's distributive education training stations. A frequency rating scale was developed to make it possible for the teacher-coordinator to indicate the degree of fulfillment of the questions or objectives in relation to the effectiveness of their

training stations. The four areas of inquiry were: (1) employment procedure, (2) job assignment, (3) job instruction, and (4) progress evaluation.

He found that employment procedures comply in most instances with stated objectives. Job-assignment procedures rarely satisfy the objectives. Job-instruction procedures rarely satisfy objectives. Progress-evaluation procedures ordinarily do meet the objectives.

Chester O. Mills (1964) sought the answer to the question posed by businessmen, teacher educators, and teacher coordinators as to the academic quality of the distributive education cooperative high school student. Academic status was defined in terms of mental maturity scores, rank in respective graduating class, and over-all GPA. Also considered were student drop-out rates in high school and recruitment methods used to enroll distributive education students. Twelfth-grade students from 85 schools in 28 states were represented. Three school years were included: 1954-55, 1957-58, and 1960-61. For all three years, data indicated that more than 80 per cent of the cooperative students had mental maturity scores of between 85 and 114. Six per cent had scores below 85.

There is a trend toward lower placement of distributive education high school students in their respective graduating classes beginning in 1954. More than 70 per cent of these students ranked in the lower two quartiles of their respective classes for all three years of the study. More than 80 per cent had over-all grade-point averages of average or below-average for all three years studied. Distributive education cooperative students had a greater tendency to complete high school than their fellow students in the secondary school.

Johansen (1963) found major weaknesses in the organizational pattern of Iowa high school distributive education, although minor strengths did exist. There were major strengths in the curriculum content, instructional activities, and methods of student evaluation and appraisal. Major weaknesses occurred in physical facilities, instructional staff, and instructional materials.

Gradoni (1957) studied the status of certain aspects of cooperative work training in selected federally-reimbursed distributive education programs in New York State. He found that trainee graduates and employers benefited materially as a result of their participation. He reported that certain conditions had developed which would adversely affect future program progress if not remedied.

Boone (1964) evaluated the status of distributive education in the public high schools of North Carolina. Included in the evaluation were curriculum, instructional activities including selection and placement of students, and adequacy of facilities. Observations were made to compare the North Carolina program with published practices in New York and Virginia. Boone found the curriculum basically similar but more standardized in North Carolina, therefore less flexible. Teaching methods were similar but the lecture method was overused. The interview was the primary method of selecting students; next, school records; third, guidance counselors. Many schools lacked basic items of equipment. Progress was somewhat spotty, particularly in Negro high schools, due to the segregated pattern in education and employment.

Vogley (1958) made a comparative study of distributive and non-distributive education high school graduates. From the initial

questionnaire to 1951 graduates from three public high schools offering distributive education in Erie, Pennsylvania, three groups were selected: (1) forty-six distributive education graduates who had completed two semesters of the merchandising course in high school, (2) forty-six non-distributive education graduates who did not take the merchandising course in high school but who were, or had been, in some phase of distribution since graduation, and (3) the control group of 46 persons who were neither enrolled in the merchandising course in high school nor had they ever been employed in a full-time distributive occupation since graduation.

Vogley found that there were no outstanding characteristics revealed among three groups that might be used to identify distributive education students. No statistically significant differences were demonstrated among the three groups on the California Test of Mental Maturity scores. The control group had a higher grade-point average at graduation than the distributive education group. Employers co-operating with the distributive education work-training program generally felt that student-trainees were no more outstanding than those who were not. No statistically significant difference was demonstrated among the three groups as to performance of work after graduation. The distributive education graduates did not remain in the field of distribution as long as the non-distributive education graduates.

Pappas (1964) conducted a study to evaluate the post-secondary Ohio Wholesale Management Development Program. He found that the program met the objectives expected by the trainees and the employers. The trainees progressed much faster in the areas of personal

appearance, capacity for growth, quality and quantity of work, and human relations than the control group which had not had the training. The control group progressed faster than the trainees in the areas of job knowledge, product knowledge, customer service, and accuracy with figures. The employers felt that more assistance was needed in establishing the program and that more visitations should be made by the coordinator. The program attracted trainees of a higher caliber than those normally employed by the wholesaler. The program was able to hold the majority of the trainees. The employers, in most cases, offered the trainees important jobs upon graduation.

Henkel (1965) conducted a subjective evaluation of the two-year post-high school marketing curriculum in Wisconsin from the viewpoint of the graduates. He found a need for more specific occupational information with a broader coverage of the distributive occupations. Respondents were generally satisfied with the guidance services. Factors influencing enrollment in the marketing program most frequently mentioned were employment opportunities, high school counseling, and recommendations of friends. Little difficulty was experienced in obtaining employment following graduation. Ninety-three per cent of the respondents were in distributive occupations.

In addition to Vivian's findings (1966), reported earlier, that Indiana high school seniors participating in distributive education classes, in Junior Achievement, or in economics courses did not score significantly higher on the Test of Economic Understanding, he found that socio-economic background was not significantly related to the level of economic understanding of the student but that scholastic ability was. He recommended that experimental studies be made to

help improve the effectiveness of the three factors and that studies should be conducted in an attempt to determine what economic concepts or understandings are being learned in these three kinds of activities.

Louthen (1957) did a study of the effect of part-time employment upon the future vocational choices of high school seniors which will be of interest to distributive educators.

Robertson (1965) gathered information to appraise the effect of cooperative education programs in the secondary schools on beginning workers, using selected factors which were related to job success and satisfaction. The abstract of the study does not describe the occupational fields of cooperative students in the sample; nevertheless, the findings are of value from the standpoint of comparison with those of other studies. Cooperative education did not appear to have any effect upon any of the 11 factors studied although it was found beneficial to those students who wanted to begin working immediately after graduation from high school. Mean scores on the Job Satisfaction Scale were 66.29 for the cooperative group and 64.49 for the non-cooperative group; on the employee rating form it was 38.44 for the cooperative group and 37.09 for the non-cooperative. Of the cooperative employees, 58.82 per cent began work immediately after graduation compared with 34.28 per cent of the non-cooperative group. Cooperative employees had held an average of 2.06 jobs since graduation; the non-cooperative employees had held an average of 1.74. Gross weekly wages for cooperative employees was \$86.03 and for the non-cooperative group, \$81.56. Expected persistence in the line of work in which they were engaged was similar as were the reasons why they changed jobs.

Mock (1965) evaluated practices and procedures in the cooperative distributive education programs in the public secondary schools of Arkansas. The evaluative criteria developed by Logan (1952) were used to evaluate 15 local programs. The evaluation committee gave high ratings to the following items: (1) extent to which the programs were based on employment opportunities and needs of youth, (2) recognition given the program by the local school, (3) utilization of all resources in the development of the programs by the local school administrations, (4) care with which the teaching staffs were selected, (5) protection of students' best interests, (6) personal qualifications of distributive education staff members, (7) contributions by these staff members to the total general and vocational education programs, and (8) friendly and mutual relationships between coordinators and their students.

The following items received a low rating by the evaluating committee: (1) extent to which surveys of employment opportunities, follow-up studies, and interest studies had been made, (2) extent to which interested groups in the community had evaluated the need for distributive education, (3) degree to which the students had succeeded in general education programs prior to entering distributive education, (4) availability of suitable physical facilities, equipment, and instructional materials for the program, (5) utilization of advice of interested persons and groups in program development, (6) extent to which a sufficient number and variety of placement opportunities were provided by merchants, (7) extent to which information about distributive occupations reached students, and (8) promotion of the program by coordinators. Eight recommendations for program improvement were made to correct the weaknesses suggested by the low ratings.

Attitudes of Students

Rountree (1965) analyzed distributive education students' attitudes toward their classroom instruction, their work experience, and careers in distribution. A modified version of a summated rating scale, providing for both objective and subjective responses, was used to determine students' attitudes. Validity was determined by internal consistency and logical or circular methods. The split-halves method was used to determine reliability. Use of a scoring key insured objectivity.

Analysis of quantitative and qualitative data indicated distributive education students tend to express through ratings and opinions, favorable rather than unfavorable attitudes toward their classroom instruction, their work experience, and careers in distribution. Better employer-employee relations, better working hours, higher salaries, and a higher regard for the role of distributive education by training stations and distributive occupations personnel are improvements desired by students.

Patterson (1963) analyzed Ohio distributive education students' attitudes toward school and work. He sought to determine attitudes held by in-school distributive education students with regard to their schooling and future plans. From a population of 1,382, replies were received for 1,148. Replies came from 68 out of 71 programs.

Fifty-seven per cent said they intended to stay with present employer following graduation. Forty-four per cent said they would like to be working in a business similar to their present one in five years. Greatest influence upon choice of distributive education program was efforts of distributive education students; next, the

coordinator; third, the counselor. Few students said they were influenced by an employer or another businessman. Forty per cent had jobs when they applied for the program. Fifty-nine per cent liked school when they signed up for distributive education. Fourteen per cent did not like school when they signed up. Forty-one per cent had a change in attitude about school since they had enrolled. Of these, 51 per cent changed from dislike and indifference to favorable. Eleven per cent changed from like to dislike. Sixty per cent indicated that they planned to go on to further schooling after graduation from high school.

Merriman (1966) conducted a study in a big city to determine the stratification and comparison of a high school population by their degree of relationship to the distributive education program. The study was developed as a paradigm for the use of data processing in a research problem based on hypotheses developed from sociological theory and observed characteristics of vocational students. The study indicated that the differences between groups were generally not those which were considered to be typical of the distributive education student.

Bicanich (1964) received very favorable reports from Minnesota high school distributive education students in their reactions to the cooperative distributive education program. Eighty-five per cent of the respondents said they would choose distributive education if they were to make the choice again. The largest percentage of students (34.4 per cent) planning to stay in distribution were from suburban schools, followed by out-of-state schools (30.4 per cent), and then metropolitan schools (18.7 per cent). Out-of-state school students were best satisfied with the program (87.9 per cent) followed by

suburban school students (85.3 per cent) and Twin City schools (79.3 per cent). Twenty-eight per cent of the respondents planned to follow a career in distribution; 45.1 per cent were undecided and 24.8 per cent said that they were leaving the field.

RESEARCH

Early in this decade, Samson (1962) and Larson (1961) described distributive education research as being almost entirely descriptive in nature. Larson surveyed state departments of education and teacher education institutions offering distributive education and found that 27 per cent of the studies reported were occupational surveys, whereas only two per cent of the problems suggested for research by state supervisors and teacher educators were classified in this category. Facts such as this may be expected when an investigation includes the complete range of "research" activities. Neophyte researchers, who are greatly needed in distributive education, were able to make descriptive investigations, and since there were many more beginners than there were sophisticated researchers, descriptive studies were dominant.

The Nature of Past Research

Whether or not the dominance of descriptive research is an unhealthy situation is subject to question. Certainly, good descriptive studies serve a useful purpose: they may be forerunners of experimental research; they may lead to the development of appropriate instruments for measuring desired learning outcomes in a vocational field; they may serve as stimuli to further research on the part of the researcher and others; and so on. But can distributive education

improve and expand on the strength of descriptive research alone? The answer is obvious--not for long. Experimental studies are needed to indicate which direction to follow. Unfortunately, only one or two experimental studies in distributive education have come to the attention of the reviewers.

Fifty-eight doctoral dissertations concerning distributive education have been referred to in this report, yet only one--that of Ashmun (1966)--is classified as experimental. Another, by Vivian (1966), has some experimental study characteristics and is sometimes referred to as a comparative-type study. A person may wonder about this heavy emphasis on descriptive studies. One reason may be the lack of appropriate measuring instruments. Experimental studies are of little or no value if the testing instruments used do not measure the precise desired outcomes from teaching. In many experimental studies, it is necessary to construct a test that will measure these outcomes and usually a doctoral candidate is not in a position to accept this rigorous assignment. Another reason for the lack of experimental researchers may be the scarcity of situations in which there is a sufficient number of students or classes to form bona fide experimental and control groups. In light of the growth of distributive education, the latter reason is diminishing fast.

Measuring Instruments

Only two distributive education studies reported contained refined tests designed for the study in which they were used. On the other hand, several studies utilized existing achievement tests which were appropriate to the purposes for which the tests were designed but did not measure important outcomes in distribution. Conversely, at

least one study included the use of an acceptable test of job satisfaction--a kind of measure which holds promise for research in all vocational fields. Three studies involved the discrete use of creativity tests. Thus, it seems as though little use of tests has been made by distributive education researchers up to the present time, that some published tests are suitable for research in this field when properly selected, and that the development of tests designed for the measurement of specific distributive education outcomes is a necessity and is overdue.

One impediment to the development of tests appropriate for use in distributive education has been confusion concerning goals and outcomes. Another has been the mistaken idea that a comprehensive test is the only desirable measure. This brings to mind the words of President Maucker (1962) of the State College of Iowa in his charge to the Central Region Distributive Teacher Education Conference.

I would like to express the hope that in your deliberations, somewhere you will stress the evaluation of outcomes, and I mean hardheaded evaluation of outcomes: measurement of whatever facets of achievement (that) can be measured. I think we have hidden behind the idea that we can't measure all of the outcomes, so we don't measure any of them.

Improvement in Descriptive Research

It appears to the reviewers that the quality of descriptive studies in distributive education is improving. Certainly, the use of recognized statistical methods is increasing. In most studies, data were gathered on the entire group being studied. However, in the newer studies when the group to be studied was of sufficient size to warrant sampling, good sampling procedures were usually present.

The variety of techniques for collecting data has increased perceptibly. Although the questionnaire is the dominant device, interviews are being used increasingly. Job analyses are being complemented by critical-requirement studies in which critical incidents were used to gather data. Various kinds of attitude, aptitude, interest, and personality tests are being administered to relatively large groups of subjects.

Processing of data has improved greatly with the use of electronic data processing. Measures of central tendency are more frequently and appropriately used. Tests of significance of differences between means are becoming common and analysis of variance is not uncommon.

The Need for Researchers

Without doubt, the greatest impediment to the development of research in distributive education is the dearth of qualified researchers with backgrounds in this field. As might be expected, this relatively new kind of vocational education has been largely confined to practitioners. Many people believe this situation to be a necessary element for survival through infancy years.

Doctoral Degree Researchers

Although a doctoral degree offers no assurance of research proficiency, it may be a rough index of sophistication in research methodology. Of the 60 doctoral studies included in this report, 29 were Ed.D. studies; 25 were Ph.D. dissertations; three were Doctor of Business Administration (D.B.A.) studies; and the remaining three were not classified in the documents reviewed. This inventory

included all doctoral studies, which could be located, extending back to the early 1930's. A number of these studies were done by persons outside of distributive education or by persons who later left the field. Thus, it will be seen that there is a great need for persons who have the proper background and training to direct or conduct research studies in distributive education.

Master's Degree Researchers

Although master's degree studies do not necessarily indicate a great deal of research knowledge on the part of the investigator, some masters' studies make better contributions to distributive education research than do a number of the doctoral studies. In this review and synthesis, more than 120 masters' studies are included. Only those completed during the 10-year period beginning in 1957 were included with one or two exceptions. Nevertheless, the number is small in relation to the need for researchers.

Informal Research Investigators

Notwithstanding its status in the research hierarchy, informal or practical research has made a substantial contribution to the development of distributive education and will continue to do so. Meyer (1966), Larson (1961), and Rosenwinkel (1957) described the nature of informal research in distributive education, explained the need for it, pointed out the advantages of informal research activities, and suggested means of implementing a program of this kind. The importance for informal research was reinforced in U.S. Office of Education Bulletin, OE-82009 (1962), which presents the findings and conclusions of a three-day panel discussion on research in distributive

education held in 1961. The section of the report on findings of the panel contains the following quotation which captured the attitude of the participants: "Both formal and informal studies have a place in distributive education research."

Partly as a result of recommendations made by participants of the 1961 Panel on Distributive Education Research, the first and only publication to date on practical research in distributive education was prepared by Kneeland (1963). This bulletin is designed as a manual for beginners in practical research. It is used widely by vocational educators from other fields and by some general educators.

Iowa distributive educators carried on a well-organized program of informal research beginning in 1960. Reports of 43 studies were published in spring issues of Distributive Keynotes from 1961 through 1964 by the State of Iowa Department of Public Instruction. Samson (1962) differentiated informal research from the everyday "doing" type of study as "research when the approach to the problem is purposefully structured and is replicable." The Iowa informal research studies may be grouped into seven categories. The categories and number of studies in each are as follows: (1) evaluation of student performance--seven; (2) curriculum content--six; (3) methods of instruction and instructional materials--six; (4) student appraisal and selection--six; (5) public relations--six; (6) community service--four; and (7) follow-up and program evaluation--eight.

Data and information for the Iowa informal studies were gathered from a large variety of sources: questionnaires sent to employers, employees, customers, students, student-workers, club members, and parents; personal interviews with similar groups, direct observations

of practices and procedures, records, and literature. The projects undertaken by the Iowa coordinators indicate the usefulness of the research in obtaining answers to problems that confront individual coordinators. The tendency of the researcher to embark on second and third projects after an initial effort seems to indicate a sense of satisfaction and an increased awareness of the usefulness of informal research.

Progress in Distributive Education Research

Relatively slow progress was made in the development of distributive education research since its inception, during the first decade of the current century through the middle of the 1950's. However, the general interest in research seems to have had its effect on this field. Samson (1962) stated that the growth in research activity during the six-year period, 1956-62, appeared to exceed that of all previous years. If this is true, the rapid rate of increase in distributive education studies did not persist during the following four-year period as will be seen in the number of studies reported in Table 1. During the four and one-half year period ending in June of 1966, five more doctoral studies were produced than in the previous five-year period. The increase in master's degree investigations for the same period was only a few, notwithstanding the fact that a number of colleges had added the master's degree program to their curriculums. These data suggest further investigation

TABLE 1
MASTERS' AND DOCTORS' STUDIES IN DISTRIBUTIVE
EDUCATION, 1957-1966

Year	57	58	59	60	61	62	63	64	65	66	Total
Doctors' studies	3	5	4	2	4	3	7	5	6	4*	43
Masters' studies	14	14	8	10	13	12	13	14	16	9*	123

*First six months only.

The mean number of doctor's degree studies during the 10-year period is 4.5 as compared to 12.9 masters' studies. Approximately three master's degree studies are reported for each doctoral study. This does not imply that three persons earn masters' degrees for each doctor's degree because in a number of schools, a master's paper for thesis is optional or is not included in the program. It seems that the total number of studies at each educational level is low in light of the current interest in distributive education.

Areas of Research

Table 2 shows the number of references made to masters' degrees (M), doctors' degrees (D), and other kinds of studies (O), according to 13 content areas and by the year in which the study was made. This table provides some indication of the number of contributions made from three kinds of studies--it does not show the importance of such contributions. The data reveals that even though there were three times as many masters' studies reported during the decade, more references were made to doctoral dissertations--166 doctoral references as compared to 162 masters' references. The chart also shows the areas of study

TABLE 2

REFERENCES MADE TO STUDIES REPORTED
BY YEARS AND SUBJECTS

Subject Area	Prior to '57	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66*	Total
I. Philosophy and Objectives												
M						1	1					2
D	4	2			1							7
O									1			1
2.7 %T	4	2	0	0	1	1	1	0	1	0	0	10
II. Manpower Needs and Employment Opportunities												
M			1	1			4					6
D	1							1				2
O		1										1
3.6 %T	1	1	1	1	0	0	4	1	0	0	0	9
III. Curriculum Development												
M	1	4	5	5	1	3	2	1	3	4	3	32
D	5	3	2	2	1	2	2	7	1	1	2	28
O	1			1	1	1	2			1		7
18.4 %T	7	7	7	8	3	6	6	8	4	6	5	67
IV. Educational Programs												
M		1		1	2	1	1		1			7
D	1		1		1						1	4
O							1				1	2
3.6 %T	1	1	1	1	3	1	2	0	1	0	2	13
V. Instructional Materials and Devices												
M	1			1								2
D												
O												
0.5 %T	1	0	0	1	0	0	0	0	0	0	0	2
VI. Learning Processes and Teaching Methods												
M	1	5	4	3	1	4	1	6	4	11	2	42
D	7	6	1		10	1	1	1	4	5	1	37
O	2				1	1	4				1	9
23.9 %T	10	11	5	3	12	6	6	7	8	16	4	88
VII. Student Personnel Services												
M		3	4		3	3		8	7	4	1	33
D	8	7	2	1	6	2	5		8	9		48
O	1				2				1			4
23.4 %T	9	10	6	1	11	5	5	8	16	13	1	85
VIII. Facilities and Equipment												
M					1				1	2		4
D			1		1	1		1				4
O												
1.9 %T	0	0	1	0	2	1	0	1	1	2	0	8

TABLE 2--Continued

Subject Area	Prior to '57	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66*	Total
IX. Teacher Education												
M								1	3	1	2	7
D	9	1		1	2	1	1		1	1	1	18
O							3	4	2			9
9.3 T	9	1	0	1	2	1	4	5	6	2	3	34
X. Administration and Supervision												
M	1	1	1							1		4
D												
O												
0.8 T	1	1	1	0	0	0	0	0	0	1	0	4
XI. Evaluation												
M		1	2	3	3	3	3	3	2	3	1	24
D	1	1	3			2	2	4	3	1	1	18
O							1		1	1		3
11.5 T	1	2	5	3	3	5	6	7	6	5	2	45
XII. Research												
M							1					1
D											2	2
O							1					1
T	0	0	0	0	0	0	2	0	0	0	2	4
XIII. Miscellaneous												
M	1			1						4		6
D												
O				1								1
0.5 T	1	0	0	2	0	0	0	0	0	4	0	7
Total by Year												
M	5	15	17	15	11	15	13	19	21	30	9	170
D	36	20	10	4	22	9	11	14	17	17	8	168
O	4	1	0	2	4	2	12	4	5	2	2	38
T	45	36	27	21	37	26	36	37	43	49	19	376

* - First six months only

M - Master's Degree

D - Doctor's Degree

O - Other researches

T - Total

in which a particular kind of research is dominant. For example, doctoral references exceed those of the master's degree studies and other kinds of studies in the areas of philosophy and objectives, guidance, and teacher education, while masters' studies tend to contribute more in the areas of curriculum development, learning process and teaching methods, and evaluation. Independent studies, done by teacher-education institutions, state departments, and research institutions, contribute to all areas except instructional materials and devices, facilities and equipment, and administration and supervision. They are most often referred to in the areas of learning processes and teaching methods, teacher education, and curriculum development. From these data, it appears as though a pattern of research responsibility is evolving with certain kinds of endeavor being assumed by those who do masters' papers, and those who direct studies for institutions. More data will be needed before any definite pattern can be verified.

A comparison of the number of contributions to this review and synthesis of research that were recorded for each of the 12 major areas may stimulate some interesting conjectures. The areas in order of frequency are as shown in Table 3.

These figures are not a valid estimate of the relative amount of research activities among the categories for at least two reasons: they do not include informal researches and the number of contributions per category depends on the selective judgment of the reviewers; and the limited time that was available to procure and review the documents. For example, it is reasonable to assume that there was a great deal of local occupational survey work relating to employment needs that did not

TABLE 3
FREQUENCIES WITHIN AREAS OF RESEARCH

1. Learning processes and teaching methods.	88 (23.84)
2. Student personnel services	85 (23.03)
3. Curriculum development	67 (18.15)
4. Evaluation	45 (12.19)
5. Teacher education.	34 (9.21)
6. Educational programs	13 (3.52)
7. Philosophy and objectives.	10 (2.71)
8. Manpower needs and employment opportunities.	9 (2.43)
9. Facilities and equipment	8 (2.17)
10. Research	4 (1.08)
11. Administration and supervision	4 (1.08)
12. Instructional materials and devices.	2 (.54)
Total	369 (99.95)

The first five areas of research contributions account for nearly 87 per cent of the references included in this review.

come to the writers' attention. Further, the demands on the reviewers' time was such that detailed study of all the documents was impossible.

Notwithstanding these inadequacies, the categorical frequencies for the 12 areas have meaning. For example, they point up the inadequacies of research in the area of facilities and equipment which is a pressing problem area at this time when the preparatory project method is being developed. Most distributive educators agree that little is known about local supervision of distributive education in large school systems, yet only three contributions were reported in the area of administration and supervision. Certainly greater knowledge of the philosophy and objectives of distributive education held by various groups of distributive educators is needed to achieve unity of purpose and for the development of evaluative criteria for the program as a whole as well as for individual units of the program.

Looking to the top of the contribution frequency list, the high rank of student personnel services category may impress some readers. The relatively large number of contributions in this area undoubtedly reflects the concern of distributive educators in this area. On the other hand, the ranks of the remaining categories are not likely to surprise state supervisors and teacher educators. Feasibility and sophistication in research methods apparently are important factors in the determination of these ranks.

Institutions Producing Degree Research

Table 4 shows that there are 55 institutions of higher learning contributing to degree research in distributive education. Masters' studies were completed in 38 institutions which produced 125 studies. Doctor's degree studies were produced in 24 institutions which furnished 60 studies. Thus, it will be seen that with few exceptions, degree research studies in distributive education are widely scattered among institutions at the master's and doctor's degree levels. This distribution provides both advantages and disadvantages to distributive education which allows latitude for discussion outside of this review.

The purpose of these data is to provide some insight into the number and location of colleges and universities contributing degree research and to point up the number of studies and location of schools rather than to measure advanced degree productivity. The reader is again reminded that frequency counts of master's degree studies have very little relationship to the number of masters' degrees earned because of the fact that a number of institutions do not require a research thesis or master's paper to meet degree requirements.

TABLE 4

COLLEGES AND UNIVERSITIES CONTRIBUTING MASTER'S AND
DOCTOR'S DEGREE STUDIES

Name of College or University	Masters' Studies 1957-67	Doctors' Studies All Years
1. Adelphi University (Garden City, N.Y.)	1	
2. Arizona State University (Tempe)	2	
3. Boston University (Boston, Mass.)	1	
4. Bowling Green University (Bowling Green, Ohio)	1	
5. Catholic University of America (Washington, D.C.)	1	
6. Colorado State College (Greeley)		3
7. Columbia University, Teachers College (New York City)		2
8. Florida State University (Tallahassee)	1	1
9. George Washington University (Washington, D.C.)		1
10. Howard Payne College (Brownswood, Texas)	1	
11. Illinois State Normal University (Normal)	3	
12. Indiana University (Bloomington)		11
13. Iowa State University (Ames)	1	
14. Kansas State Teachers College (Emporia)	9	
15. Kansas State Teachers College (Pittsburg)	2	
16. Kent State University (Kent, Ohio)	1	
17. Madison College (Harrisonburg, Va.)	1	
18. Mankato State College (Mankato, Minnesota)	1	
19. Michigan State University (East Lansing)	1	
20. Montana State University (Missoula)	1	
21. New York University (New York City)		8
22. North Carolina University (Durham)	2	
23. North Dakota University (Grand Forks)		1
24. Northern Illinois University (DeKalb)	5	1
25. Ohio State University (Columbus)	11*	4
26. Pembroke State College (Pembroke, N.C.)		1
27. Sacramento State College (Sacramento, California)	1	
28. San Diego State College (San Diego, California)	2	
29. San Francisco State College (San Francisco, California)	1	
30. Stanford University (Palo Alto, California)		2
31. State College of Eastern Tennessee (Johnson City)	1	
32. State College of Iowa (Cedar Falls)	6	
33. State University of Iowa (Iowa City)		4
34. Stout State University (Menomonie, Wisconsin)	1	

TABLE 4--Continued

Name of College or University	Masters' Studies	Doctors' Studies
	1957-67	All Years
35. Temple University (Philadelphia, Pa.)		1
36. Texas College (Tyler)	1	
37. Texas Woman's University (Denton)	1	
38. University of Arkansas (Fayetteville)		1
39. University of Denver (Denver, Colorado)		1
40. University of Idaho (Moscow)	1	
41. University of Illinois (Urbana)		1
42. University of Michigan (Ann Arbor)	1	1
43. University of Minnesota (Minneapolis)	48*	8
44. University of Nebraska (Lincoln)		1
45. University of North Carolina (Greensboro)	1	
46. University of Oklahoma (Norman)		1
47. University of San Francisco (San Francisco, California)	1	
48. University of Southern California (L.A.)	1	3
49. University of Tennessee (Knoxville)	5	
50. University of Texas (Austin)	1	1
51. University of Virginia (Charlottesville)		1
52. University of Wisconsin (Madison)	4	
53. University of Washington (Seattle)	1	
54. Utah State University (Logan)		1
55. Virginia Polytechnic Institute (Blacksburg)	1	
Totals	125	60

*Reports of studies readily available.

An analysis of the data in Table 4 reveals that there is a wide range in the size of schools contributing degree research and that the size of the institution appears to have little relationship to the number of studies produced.

Comparative data on research productivity by geographical regions has generated considerable interest in the past. Therefore, Table 5 was compiled. Although the regional organization of vocational

TABLE 5
REGIONAL DISTRIBUTION OF INSTITUTIONS AND DEGREE STUDIES

Kinds of Studies Pro- duced	Central Region		North Atlantic Region		Southern Region		Western Region	
	Insti- tutions	No. of Studies	Insti- tutions	No. of Studies	Insti- tutions	No. of Studies	Insti- tutions	No. of Studies
Master's only	11	30	3	3	8	13	9	11
Doctor's only	5	18	4	12	4	4	4	7
Both kinds of studies	4	79	0	0	2	4	1	4
Totals	20	127	7	15	14	21	14	22

education by subject-matter field seems to have been discarded, there are enough advantages to merit its use here.

Table 5 shows the number of institutions and the number of masters' and doctors' studies produced in the four regions--Central, North Atlantic, Southern, and Western. The Central Region contains the most schools contributing distributive education studies (20 schools or 40 per cent) and produces the largest number of studies (127 or 69 per cent). Note also that there appears to be a higher rate of productivity in institutions where there are both master's and doctor's degree studies in distributive education.

Independent and Funded Studies

Substantial contributions to distributive education research in recent years have been made through independent studies by individuals

or groups of teacher educators and/or state supervisors, by state departments of education, and by private and public research agencies with financial support from government and foundation funds.

Distributive Education Centered Studies

Early attempts at group research were started by Central Region state supervisors and teacher educators in the mid 1950's when little research money was available. An example of this effort is a study entitled, Training Placement of Cooperative Part-Time Students in Relation to Opportunities in Distribution, published by State College of Iowa. (See Haines and Samson, 1957.) This kind of activity was perpetuated by the Council for Distributive Teacher Education (CDTE) soon after it was organized. This organization, which is affiliated with the Distributive Education Division of the American Vocational Association, has published two studies per year since 1962. (See Knouse, 1962, for first bulletin.) Another joint venture was spearheaded by Haines (1964), who chaired a committee of the National Association of Business Teacher Educators (NABTE), and CDTE, which published a report on the technical content competencies needed by teachers of retail subjects.

State departments of education and teacher education institutions have conducted research jointly and independently, which has made increasingly valuable contributions in Virginia, Michigan, Kansas, Pennsylvania, and other states. Studies such as these and those done by professional organizations provide an optimistic note for distributive education research in the future.

The U.S. Office of Education has encouraged distributive education research through conferences, the publication of bulletins, and other activities. The first publication of the Office of Education relating to research was the frequently quoted Emick study (1936). Another kind of research involvement of the Office of Education is found in partial funding of a study of distributive education practices in large cities conducted by Temple University Educational Service Bureau. (See Ovsiew, 1962.) Current practice is for the Office to contract for projects or to fund research proposals under Section 4c of the Vocational Education Act of 1963.

Distribution-Centered Studies

As mentioned earlier, good research in distribution is not plentiful. However, some interesting studies of distributive business practices have been made which provide valuable information for distributive educators. Examples of such distribution-oriented studies are the Lombard study (1955) of the motivation of sales personnel and departmental group dynamics, the Clark and Sloan study (1962), which characterized and criticized store training practices, and the Mayer and Goldstein study (1962), which identified factors in small business failures and successes. It is doubtful that distributive educators have fully capitalized on these studies which were sponsored by the Ford Foundation, by the Small Business Administration, and by the Institute for Instructional Improvement. Two other studies, which have had a heavy impact on distributive education, are the Pierson report (1959), sponsored by the Carnegie Foundation, and the Gordon and Howell report (1959), sponsored by the Ford Foundation. The

impact of these studies on distributive teacher education, the identification of the role of the collegiate school of business administration, and the obligations of distributive education to small and large business firms entitles them to a place in this review.

Research Under Way

No attempt was made in this review to inventory research that is under way. However, some selected observations will be made. Currently, the only source of information about distributive education degree studies under way may be found in the Spring issue of the National Business Education Quarterly. Unfortunately, many distributive education studies are not listed in this publication. Proposals for research in all vocational fields that have been approved for funding by the U.S. Office of Education have been described briefly in a section of the American Vocational Journal. Also, lists of approved projects are released at intervals by the Division of Adult and Vocational Research, Bureau of Research.

Funded Studies in Agri-Distribution

An examination of the list of proposals approved through November 30, 1965, provides some interesting information for distributive education researchers. Thirteen projects deal with problems usually conceived as being in the distributive domain. Seven of the 13 treat non-farm agricultural occupations education problems; three deal with the training of food service employees; and three involve distributive educators in problems of curriculum, methods, and teacher education. This situation reflects several deficiencies centering around the

dearth of research-oriented distributive education personnel. Termination dates indicate that the studies directed by the following persons were to be completed by September 30, 1966, in the area of non-farm agricultural occupations education: Taylor (1965), Coster (1965), Albracht (1965), and Dillon (1965). Similar-type studies are under way, according to the listing, by Mondart (1965), Binkley (1965), and Hull (1965).

Funded Studies for Food Service Employee Training

Public Law 88-210 requires that 10 per cent of home economics moneys must be spent on gainful employment training in the very near future. According to the list of approved proposals, two projects have termination dates in 1966--those by McKinley and Chadderdon (1965) and by Hollandsworth (1965). Another large grant has been made to Iowa State University under the direction of McKinley (1965).

Funded Studies in Distributive Education

The termination date of the first proposals approved by the Office of Education indicates that a project to develop a programmed textbook in salesmanship for experimental use in adult education has been completed under the direction of Russell (1964). F. E. Hartzler, Teacher Educator, Kansas State Teachers College, Emporia, writes:

We have now printed our four-thousandth copy and our adult specialist last year achieved sixteen thousand man-hours of instruction through the use of the programmed text. He has at this time, more enrollment in adult instruction than previously achieved in an entire year.

A training program proposal by Samson (1965) to conduct an experimental vocational institute for the preparation of teacher-coordinators of

newly-emerging high school vocational programs was the second project which had an expiration date of June 30, 1966. The third project relates to the competency pattern approach to curriculum construction in distributive teacher education by Crawford (1965). The latter promises to make one of the most valuable contributions of research to distributive education to date. It entails (1) a validated list of basic beliefs about distributive education, (2) an identification of the critical tasks of the distributive teacher-coordinator, and (3) the knowhow for the performance of these tasks and for the implementation of the basic beliefs. The last step includes an understanding of the occupations in which student-trainees are employed.

Another funded project, which was not in the list mentioned above, is a two-phase study dealing with occupational experience and career development directed by Meyer (1965) and Tennyson and Meyer (1966). The first phase was a pilot-training project based on directed occupational experience for teachers of distribution and marketing, the purpose of which was to maximize the value of planned occupational experience. Phase two of the project is intended to deal with the teacher and the teacher-coordinator's responsibilities for the career development of their students and student trainees.

Donald T. Balasky is the director of a funded project at Michigan State University entitled, "The Role Expectations of Distributive Education Teacher-Coordinators in Nine Selected States," which is scheduled for completion in March, 1967.

Research Training Institutes

In recent years, selected leaders in distributive education have participated in a series of one-week seminars or institutes, along with vocational educators from other fields. The history and background of these institutes, which treated a variety of subjects, was described by Hill (1966), project director for the six training institutes conducted during 1966. These research training institutes have helped stimulate interest in research among the leaders of the respective vocational fields. It is quite likely that they provided the stimulus for the development of the proposals for the U.S. Office of Education funded projects mentioned above.

MISCELLANEOUS INFORMATION

This part of the Review and Synthesis of Research will include a description of a study of distributive education in Europe, a brief review of three American studies about which information came to our attention recently, and notations of studies which may be of value but for which summaries or abstracts were not obtained.

European Distributive Education

Hannaford (1959), Principal of the College of Distributive Trades in London, prepared a report on "the education and training" (he makes a distinction) for distributive trades in the Organization for European Economic Co-operation countries. The report was based on a survey by national "rapporteurs" in Austria, Belgium, Denmark, Eire, France, Germany, Italy, Luxembourg, The Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. It dealt with the extent and kind of vocational

training with a view to raising productivity. The report makes recommendations for improving the level of professional education in this field and gives information on training "programmes" and examination requirements, as well as statistical data. It deals with distributive education by state and local governments, by the distributive trades, by individual business firms, and private educational enterprises.

The bulletin containing this report deserves careful study by sophisticated distributive educators who will be able to identify American counterparts in the European development of distributive education and to improve their predictions of future developments in our program by virtue of a knowledge of European experience. The report is analytical, critical, and optimistic, and provides some keen insights into the problems of distributive education.

Studies Reviewed at a
Late Date

Green (1965) did an independent "study in depth of curriculum planning for the high school distributive education curriculum." The purpose of the study was to determine the placement of students in the distributive education cooperative programs within the State of Ohio, then make recommendations as to what should be offered in the curriculum. Information was gathered regarding what other states were doing to up-grade and up-date their distributive education programs, particularly any new trends which had developed. Job-placement information on Ohio students was collected. State supervisors in all states were contacted relative to supplying approximately 25 per cent of the names of the coordinators within their state. Forty-six

supervisors responded with the names of 356 coordinators. Questionnaires were answered by 134 of them.

A table was constructed showing the placement of 1,316 students during the 1964-65 school year. Retailing accounted for 91 per cent of the placements. One-fifth of the placements were in department stores, another one-fifth in grocery stores, and one-tenth in variety stores. Schools with fewer than 500 students accounted for 15 per cent of the placements, while schools with over 1,500 students enrolled 34 per cent. In the preparatory courses, there was a preponderance of schools offering business arithmetic, salesmanship, economics, and business law on a half-year basis. Units of study in specialized areas in the 12th-year cooperative classes are generally of four weeks duration. Retail merchandising (buying and selling) units of study were taught in varying lengths of time from four weeks to 12 weeks.

Green (1965) recommended that (1) units of study in specialized areas in the 12th-year cooperative classes should include at least four weeks each of sales promotion, retail operations, store management, retail mathematics, and economics of distribution; (2) economics as a requirement for distributive education students should definitely be considered; (3) at least six weeks time should be devoted to each unit of study in the 12th-year cooperative class with reference to merchandising, sales promotion, and retail mathematics; and (4) business communications may be offered in the 12th year as a practical substitute for English 4, if four years of English is a local or state requirement for graduation.

Hill (1965) did a study, the purpose of which was to overview Bayesian statistics and relate the Bayesian approach to marketing.

specifically to pricing in a spray products firm. He reported that Bayesian analysis allows statistical approaches to be combined with subjective feelings before a final mathematical conclusion is reached; that the approach is valid if the prerequisites to a Bayesian analysis are present; and that marketing can make beneficial use of the approach.

Maxey (1965) studied office and sales occupations in selected business firms in Deerfield, Illinois, using personal interviews and questionnaire check lists to gather data. Her findings related mostly to the office occupations. Those dealing with distributive occupations were: (1) women are preferred for the majority of positions in office and sales occupations; (2) there are opportunities in office and sales occupations in Deerfield for part-time and full-time employment during the school term and during the summer months.

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